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Design for Empowerment: Developing New Approaches for Humanitarian Design

by

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Dedication

To the love of my life, for all our great conversations and your limitless support. I could not have done this without you; your skills and talents are an ongoing inspiration to me!

To my family, for your constant nudging, and for listening to hours and hours of my convoluted explanations when asked what my thesis is actually about.

And, to my Early 2008 Macbook Pro. Thank you for not dying or crashing throughout the entirety of my thesis, you have served me well.

Abstract

This document is the result of 12 months of research as part of the Master of Design program at the University of Alberta. It describes and discusses a proposal termed Design For Empowerment (DE), which seeks to apply knowledge from relevant humanities to the field of design in order to improve humanitarian design approaches. This thesis describes the parameters and goals of the proposal, while explaining the process involved in applying DE to a real life design scenario. Thus, this document is intended to describe a change in design approach and suggest an alternative to traditional prescriptive design methodologies more so than being a description of the designed object itself.

Table of Contents

Introduction	7
Chapter 1 : Background	10
Chapter 2 : Co-Design	15
Chapter 3 : Strength-Based Design	19
Chapter 4 : Capacity Building	22
Chapter 5 : Community Development	25
Chapter 6 : Goals and Methodology	27
Chapter 7 : Focus Group Results	31
Chapter 8 : Design Booklets	35
Chapter 9 : Design Booklet Results	38
Chapter 10 : Proposal	42
Chapter 11 : Conclusion	50
Appendices	53



Introduction

I initiated this study from what many would consider to be a traditional design approach, meaning that I set out to define an achievable outcome for my project and planned the necessary (and predictable) steps that would be required to produce the outcome that I desired. My approach and methodology at the time was the culmination and result of my undergraduate studies in architecture and professional experience working in an architecture firm in Canada. While strides are being made within architecture regarding community engagement the architect is still often considered to be the expert¹, and my professional experience demonstrated a lack of methodologies such as co-design (a design approach that makes the designer and the user equal partners in the design process) within the corporate context. Therefore, upon initiating this study I had an awareness of co-design theory (which will be discussed in Chapter 2 of this document), but no experience regarding its real-world application.

This study began as a proposal to design flat-pack furniture for use in education in refugee contexts. I intended to research existing issues and develop a solution that would apply to multiple contexts: I approached the issue with an expert mentality (believing I had all of the necessary skills to complete the task) and intended to apply secondary research to my skills. However, I quickly discovered the complexities surrounding humanitarian aid, as well as the exciting paradigm shift occurring in other humanities such as Economic Development and Social Work. This discovery led to a personal paradigm shift in my design approach, and the study quickly developed into something much larger than I had originally envisioned.

My research in other humanities led me to concepts such as “strength-based approach”, “capacity building”, and “community development”, all of which described human-based approaches to humanitarian design and social work. Further research and thought revealed that the tenets of each of these concepts could be applied to design in order to develop a design approach that would have the designer focus more on the result and human impact that a product has than on the product itself.

Using tenets from each of the concepts, I formulated goals and strategies for a new design approach that I termed Design For Empowerment (DE), which represents an attempt to draw knowledge from the forefront of other humanities in order to align the field of design with other fields in a way that benefits the field of humanitarian aid as a whole.

Now framing my research according to DE, my study evolved from being a simple exercise involving predictable steps to achieve a predetermined goal into a much more complex yet full-bodied exercise that involved ongoing interaction with a community of educators (Edmonton Public School Board teachers) in order to determine what the goal(s) of the study should be.

The educators, my design partners for this study, represented teaching experience in Belize, Ghana, China, and First Nations, Metis, Inuit (FMNI) communities. Through my work with them, applying DE as an approach to my work, we were able to develop a design prototype that is adaptable to most cultural contexts.

Therefore, this document will :

- briefly delve into each of the earlier mentioned concepts (co-design, strength-based approach, capacity building, community development) and discuss their application to design
- describe the research methodology that I chose to employ for this study
- provide an overview of the primary research (process and results) that I conducted as part of this study
- present a design prototype that was developed as one of the outcomes of this study

¹Expert in this instance refers to an individual who possesses all of the knowledge and skills required to complete a task.

It should be mentioned that the concepts discussed in this document (co-design, strength-based approach, capacity building, community development) are done so at an introductory level only, and I would recommend and encourage further research into each of the concepts and fields presented, as they each represent a rich and vast body of knowledge that far exceeds that of this study.

In no way do I consider this study to be conclusive or terminal in its proposal; this work is part of an already existing body of academia, and it is meant to generate thought, prompt discussion, and further inspire a paradigm shift within the field of design. I welcome any and all modifications, permutations, and adaptations of my work, and hope that others will find reason to do so.

Chapter 1 : Background

Asymmetry and Stereotypes

New consideration is being given to the role of humanitarian aid and the ethics behind aid. Barbara Harrell-Bond, the founder of the Refugee Studies Center at Oxford University, addresses some of the ethical concerns surrounding humanitarian aid. In her article *Can Humanitarian Work with Refugees be Humane?* she states that “in the context of giving humanitarian assistance, whether or not they are aware of it, humanitarian workers stand in an asymmetrical relationship to refugees who are symbolically disempowered through becoming clients of those upon whom they are dependent for the means of survival and security”.¹ While her research is concerned primarily with refugee-specific situations, Harrell-Bond’s above statement is equally applicable to a variety of aid contexts. It is important that every effort be made to empower the individual, group, or community who is being supplied aid in order to bring some level of balance back to the aforementioned asymmetrical relationship between aid worker and aid receiver. This is not to say that aid should no longer be given, but rather that more careful consideration needs to be given to what aid is and how it affects both the giver and the receiver. Harrell-Bond also discusses the problems created by refugee stereotypes. A “good” refugee is one who is helpless and vulnerable. Individuals are more likely to be stirred to action and to volunteer help when the image of a “good” refugee is shown. This may condition the behaviour of the helper, as well as inform “refugees’ perceptions concerning the role they are expected to play to gain the approval of the helpers and to be successful in obtaining aid”. The fulfillment of the “good” refugee image belittles the refugee population, who represent a variety of cultural, socio-economic, and educational backgrounds. This too may be applied to other aid contexts: there are stereotypes regarding the “good” earthquake victim and the “good” developing nation citizen; North Americans may be familiar with the “good” homeless individual. Harrell-Bond’s discussion brings to light the importance of engaging communities in order to correctly place oneself within a given context, and to gain an understanding of the diversity that exists within that community.

Design for Empowerment

Recently the roles of designer as expert and user as client have become blurred, and design is shedding much of its prescriptive quality. Designers are now working directly with the user group being designed for, acting more as facilitators and less as creators. Designer creativity is no less essential than before, but is now channeled towards developing creativity in the client. In this way the designer has become a translator of ideas, capturing the client’s thoughts and using them to develop a product that is the culmination of all thoughts expressed.²

This design approach (co-design) is much more complex and time consuming than the traditional “designer as expert” approach, but has the ability to produce more thoughtful, effective design solutions; it more directly meets the needs of the user as they are involved in the design process itself. It also draws on a more specific level of expertise, as the users will almost always be more versed in the field being designed for than the designer her/himself.

While this approach provided a useful foundation for my research, the goal of co-design is typically to develop monetary, experience, or social value³, which often overlooks the empowerment of the user group.

1 Barbara Harrell-Bond. “Can Humanitarian Work with Refugees be Humane?” *Human Rights Quarterly* 24.1 (2002) : 51-85

2 These thoughts stem from Liz Sanders and Pieter Jan Stappers Pieter Jan Stappers “Co-Creation and the new landscapes of design”, which will be discussed in the following section.

3 Liz Sanders and George Simons. “A Social Vision for Value Co-creation in Design” *Open Source Business Resource* December 2009 : Value Co-Creation

This is typically not a relevant issue when designing for wealthy, developed nation contexts; users can be involved in the design process, designers develop a final product according to user input, and the design is produced using industrial manufacturing techniques. However, when designing for other contexts, the issue of empowerment becomes paramount.¹

Humanitarian aid is often criticized for its top-down administration; the donor has power over the individual receiving aid, and factors such as the amount of aid, method of administration, and type of aid are controlled entirely by the donor. It is not enough to simply involve the user in the design process when designing for situations such as these. Involving users in the design process as well as the development and manufacturing of a final design solution empowers individuals and allows them to develop independence from the donor. It allows room for inspiration, as individuals directly contribute to the well-being of their community, and it allows for maintenance-free design in regards to the designer (the design is adapted and further developed by the users themselves, not the designer, which also allows for personalization of the design).

Overcoming Colonialism

During the course of my research, I spoke with a community liaison at the Edmonton Mennonite Centre for Newcomers; an organization that assists refugees and immigrants. As we spoke she stated that for her the term “third world” is a colonial term, and can conjure up negative reactions among immigrant and refugee populations. She mentioned that “developing nation” is likely a more acceptable term, and in that moment I became acutely aware of the lingering effects of colonialism. Though we live in a post-colonial period, former empires need to be careful so as not to proceed with a colonial mentality. The asymmetrical power relationship that often exists between aid worker and aid receiver may be viewed by some as a colonizing effort, through the application of aid rather than force. The quintessential example of misguided good intentions, humanitarian aid that lacks a focus on empowerment may be appreciated by locals for its practical function but resented for its tendency to generate dependency. DE again becomes an important approach for humanitarian design, as it promotes independence and a transfer of power from the designer to the user. The goal is not to prescribe a solution or develop an all-encompassing solution, but to generate context-specific solutions that can be improved upon and developed by the individuals for whom the solution has been developed.

My newfound awareness regarding colonialism and its after-effects played an important part in my design process, as I found that I had increased sensitivity and empathy for the communities that I would be working with for this particular project.

It may now be helpful to present what I consider to be an example of DE, and while it does not totally conform to the goals and parameters that I constructed for my project (goals and parameters will be discussed later in this document), it still acted as a strong reference for my initial thesis work.

1 It should be mentioned that Liz Sanders and George Simons address the idea of social value in relation to co-design in their article “*A Social Vision for Value Co-creation in Design*”, and speak of The Acumen Fund, “which identifies large social issues such as poverty, water shortage, and the spread of disease, [involving] people to solve their own problems, in the context of their culture and location” (p.4). However, they describe the process of social value within co-design as involving “the integration of experts and everyday people working closely together” (p.2). We see here again the separation between experts and “everyday people”.



Fig.1

This learning environment designed by nonprofit group *Project H* is used to teach elementary math skills through play. The landscape consists of a four-by-four grid made from reused tires set within a sandbox (fig.1). Project H designed ten games that can be played and used to teach “concepts including addition, subtraction, multiplication, and division, as well as spatial and logical reasoning through individual and team-based competition”.¹ The success of the design lies in its scalability and universality. Chalk is used to write numbers on the tires, making the design flexible. Because the design simply provides a framework for games, it is not limited by language, and the simplicity of the games allows for easy instruction. When coupled with an integrated bench system, the design is also able to function as an outdoor classroom if desired (fig.2). While this project follows a more traditional design approach (designer as expert), it has been executed with a unique sensibility regarding usability and the desire for user empowerment. The product can be constructed with affordable, local materials, and can be constructed using local labor in situ. Complete independence from the designer is achieved, and can be adapted according to context-specific needs. Involving the user in construction and implementation of the design allows for a transfer of power from designer to user, and represents an acknowledgement on the designer’s part of the skills and strengths of the user; he/she displays confidence in removing her/himself from the design and allowing the user to take full ownership and control over future development of the design.

¹ Learning Landscape. *Afritecture*. 15 July. 2010. Web. 13 January. 2014. <<http://www.afritecture.org/landscape-architecture/learning-landscape>>



Fig.2

Us Vs. Them

It is worth discussing the notion of us vs. them within the context of this study. There is a tendency among cultures to view themselves as “us” and cultures existing in other contexts as “them”. For example, North Americans often consider themselves to be the dominant culture or the norm, with other cultures and nations being considered outsiders. This results in humanitarian approaches that assume that North American practices are correct, and that other nations and people groups will be improved through being taught the knowledge that we (I say “we” because I am a North American myself) possess. This may be true in some cases, but not all, and in fact the inverse is equally true: we (ie. North Americans) may be improved through being taught the knowledge that other people groups and nations possess.

This tendency often occurs accidentally, and without any malicious intent. Individuals will often express that they embrace all cultures, while feeling that their culture is one group and that all other cultures are another. Other cultures may be lumped into one group that stands separate from their own, without an acknowledgement of the diversity that exists between all cultures (with our culture being just as unique to another as another culture is to ours). All cultures are equally unique, and it is important to distinguish successful methods and systems from a particular culture of origin.

It is also necessary that situational context be considered in relation to culture. For example, as this study progressed I recognized that I would be proposing a solution for a particular part of rural China. It was essential that I did not consider that group as a culture to be improved by my own, but also to realize that this particular group of students in this particular area of rural China was unique from groups in other parts of rural China (as well as urban China). It was not enough to simply design for Chinese students, rather my proposal in this instance was for the exact Chinese student body that exists where the participant in my study had volunteered.

Chapter 2 : Co-Design

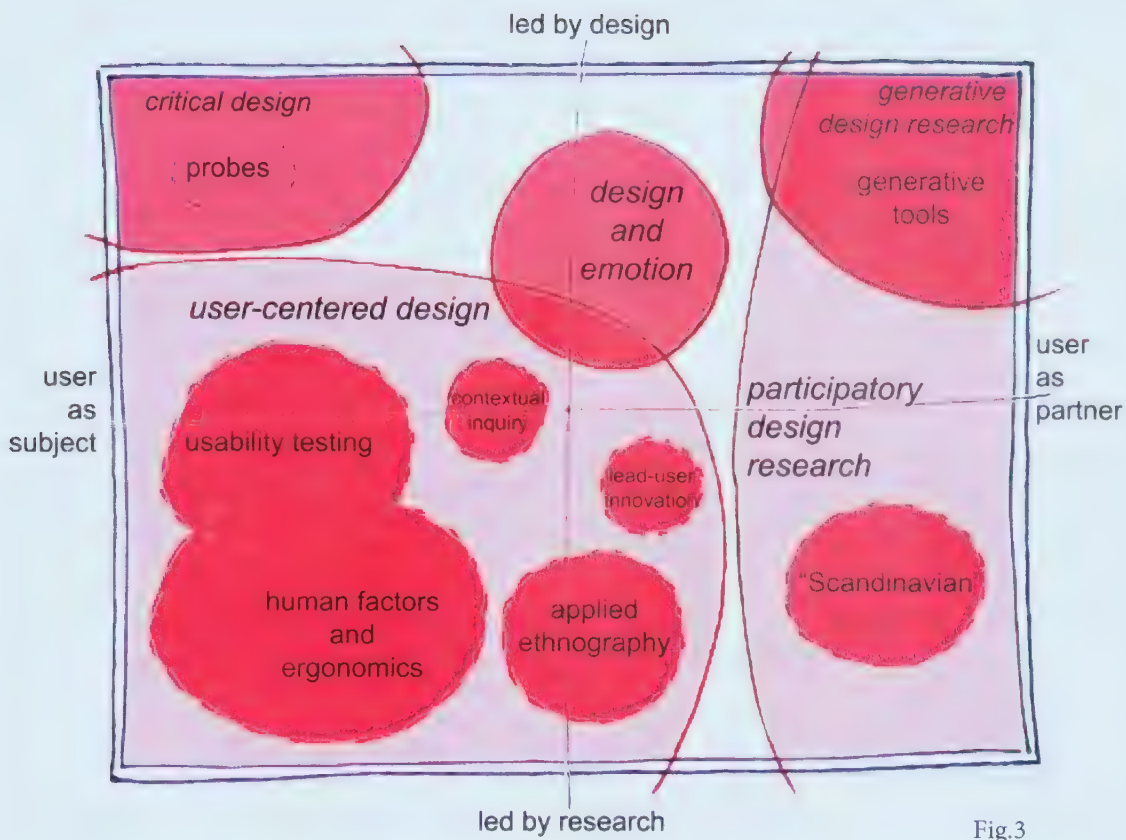


Fig.3

Co-design refers to “the creativity of designers and people not trained in design working together in the design development process”.¹ My approach to this project closely reflected the process of Co-Design, which involves what Liz Sanders calls a “fuzzy front end”. In her article “Co-creation and the new landscapes of design”, she describes the importance of the pre-design stage in Co-Design: projects begin with open-ended questions, and the form of the final deliverable is often unknown (ie. product, service, interface, building).² This fuzzy front end forms the foundation for the rest of the project, as project goals and objectives are determined during this part of the process.

Sanders also explains the difference between user-centered design and co-design. Using an infographic (fig.3) she demonstrates that user-centered design is much more of a top-down scientific process involving the application of theory, while co-design (labeled as participatory design research on fig.3) is much more cooperative. User-centered design seeks to develop solutions that are thoughtful and incorporate human factors, ergonomics, and other factors, however the user remains just that: a user. They are viewed as something testable and measurable, resulting in the individual's data impacting the design rather than the individual themselves. Co-design introduces equality between designer and user, recognizing each individual's unique qualities and personalities, adding a distinctly human quality to the design process.

I began my research with the question “how can I improve education in other contexts?” According to Sanders, the “goal of the explorations in the front end is to determine what is to be designed and sometimes what should not be designed and manufactured”.³ The value of the data collected from my focus groups was not only in the clarity provided regarding needs in education, but also in determining what was not needed.⁴

Why Co-Design?

My attraction to co-design in relation to this study related mainly to its assertion that all people are creative. This is a challenging statement, and complicates a more traditional approach such as user-centered design; it changes the role of the designer and/or researcher in the design process. Sanders comments on the role of designers within co-design:

*When we acknowledge that different levels of creativity exist, it becomes evident that we need to learn how to offer relevant experiences to facilitate people's expressions of creativity at all levels.*⁵

1 Elizabeth Sanders and Pieter Jan Stappers. “Co-Creation and the new landscapes of design”. *International Journal of Co-Creation in Design and the Arts* 4.1 (2008) : 5-18, p.6

2 Elizabeth Sanders and Pieter Jan Stappers. p.7

3 Elizabeth Sanders and Pieter Jan Stappers. p.7

4 Notice the “design and emotion” bubble in Figure 3. This is a key component of Design For Empowerment, and perhaps the greatest commodity gained from my focus groups was empathy. By being open and truly listening to the experiences of those participating in my focus groups, I was able to gain a deeper level of understanding regarding the background issues surrounding education in less-wealthy situations.

While emotion is often considered to be a confusing factor in design, it is essential when designing for empowerment. The needs of the individual or group being designed for must be placed above all else.

5 Elizabeth Sanders and Pieter Jan Stappers. p.12

There are four different levels of creativity that Sanders refers to: 1) doing, 2) adapting, 3) making, and 4) creating. These levels represent a creative spectrum, with creating being the most creative and doing being the least creative. These levels are useful because they assert that everyone is creative in everything, but at different levels. It also means that everyone has something to offer creatively, no matter what level they typically operate at.

According to Sanders, “we are no longer simply designing products for users. We are designing for the future experiences of people, communities and cultures who are now connected and informed in ways that were unimaginable even 10 years ago.”¹

Humanitarian design too often offers products for users rather than concerning itself with the future experiences of people, communities and cultures. Many times designs are proposed as catch-all solutions for all contexts. This is often due to cost and efficiency of implementation, and there is a place for these types of proposals, however context-specific, Co-design proposals need to gain mainstream recognition if humanitarian design is to adapt to the complexities of a modern era.

CoDesign Vs. Design for Empowerment

My goal throughout this project and study was not to criticize co-design, but to capitalize on its strengths while adapting its weakness within humanitarian applications. One difference between co-design and DE is the implementation of the design. Co-design may, but does not always aim to have the end user implement their own design; in addition, future adaptations and changes may require the designer to re-engage with the users in order to redevelop the design. DE aims to have the end users implement the design, utilizing the skills and strengths of whatever context the design has been developed for; local materials, skills, and labour are considered and used without exception. The goal of DE is for the user to be able to adapt and manipulate the design as required without the aid of the designer. There is a greater level of realism involved in the design process as well, as both the designer and the co-designer(s) strive to propose a solution that is immediately achievable using readily available resources.

¹ Elizabeth Sanders and Pieter Jan Stappers. p.10

Chapter 3 : Strength-Based Design

The field of Social Work has fairly recently undergone a paradigm shift from its traditional methods of treatment to what is called strength-based practice. The main tenet of strength-based practice is suggested in its name, as practitioners are asked to focus on the strengths that a client has rather than the dysfunctions that exist. There is an understanding that “what the client brings in terms of strengths, resilience, and social supports... are responsible for most of what is going to change and how it is going to change”.¹ Within this methodology it is also understood that the client’s perception of the social worker has a profound effect on the quality of the relationship, which has a large part to play in encouraging positive changes.

Let us apply this thinking to design, according to a co-design approach. When working through the fuzzy initial stage of pre-design (in which the end deliverable is unknown) it is important for the designer to focus on the strengths of the individuals with whom the design is being developed. Manufacturing skills, locally available material, contextually relevant technology are a few factors that should be considered in regards to strengths. It is more helpful to determine what is available than what is not. Designers will benefit from the realization that the strengths brought by the user will determine the efficacy and success of the design more than the skills that the designer brings. The strength-based approach pairs with the assertion that all individuals are creative, and with this mindset the designer is better able to facilitate and support creativity in co-designers.

It is also important to be aware of the cultural strengths of other contexts. What the designer may consider to be a dysfunction may be a strength within that context; it cannot be considered to be a dysfunction simply because it is different than the context that the designer has become accustomed to. The designer is not fixing a problem in a context, but rather offering an alternative to existing methods: the success of the solution and its implementation is dependent entirely on its users, and is beyond the designer’s control. Regarding strength-based practice, Robert Blundo states that according to this paradigm the “emphasis shifts from problems and deficits defined by the worker, to possibilities and strengths identified in egalitarian, collaborative relationships with clients”.² Blundo is discussing strength-based practice in relation to the field of social work, however if the words “worker” and “clients” are replaced with “designer” and “user” the statement becomes equally applicable to design. Blundo goes on to quote another social work theorist, Dennis Saleebey, who describes strength-based practice in three concepts. Each concept strongly reflects the values of DE:

- *Given the difficulties they have, and the known resources available to them, people are often doing amazingly well - the best they can at the time.*

Vernacular design³ is incredible, and though modern resources may not be available, individuals in different contexts find a way to meet their needs. The methods they employ may not be the most efficient, but efficiency must be considered in relation to complexities such as culture, socioeconomics, and politics. In order to empower a group of individuals it is important to design according to the “known resources available to them” (from quote above): in this way individuals are given responsibility to improve their own well-being, and shown that they are trusted as being capable to do so.

- *People have survived to this point- certainly not without pain and struggle- through employing their will, their vision, their skills, and, as they have grappled with life, what they have learned about themselves and their world. We must understand these capacities and make alliance with this knowledge in order to help.*

1 Robert Blundo. “Learning Strength-Based Practice: Challenging our Personal and Professional Frames”. *Families in Society: The Journal of Contemporary Human Services*. 82.3 (2001) : 296-304, p.301

2 Robert Blundo. p.302

3 Vernacular design refers to the development of architecture and products without the aid and intervention of a professional architect or designer.

In order for DE to be effective, the designer must be able to identify the skills and knowledge that the co-designer possesses. Understanding their capacities (“their will, their vision, their skills”) allows the designer to develop resources to capitalize on these capacities and maximize creativity in the individual.

- *Change can only come when you collaborate with client’s aspirations, perceptions, and strengths, and when you firmly believe in them.*¹

A key component of DE is empathy. As discussed earlier, the designer is not simply providing a product to a user, but is creating a future for a community. In addition to creative support throughout the design process, successful DE depends on genuine interest in the wellbeing of the individual or group that the designer is working with. The designer must place greater emphasis on the aspirations, perceptions, and strengths of the individual or group they are working with than their own.

¹ Dennis Saleebey. “The strengths approach to practice”. *The strengths perspective in social work practice*. (2nd Ed.) White Plains, NY: Longman. 1997. Print.

Chapter 4 : Capacity Building

Effective strength-based design and successful DE relies directly on capacity building in the individual or group that the designer is working with. As discussed in the previous chapter, capacities (ie. abilities, skills, visions, goals etc.) must be identified in order to develop methods that seek to utilize these factors. Deborah Eade offers a definition of capacity building in her article “Capacity Building: Who Builds Whose Capacity?”:

(I)t's early origins lay in the belief that the role of an engaged outsider is to support the capacity of local people to determine their own values and priorities, to organize themselves to act upon and sustain these for the common good, and to shape the moral and physical universe that we all share.¹

This definition clearly emphasizes the empowerment of the local population, with the goal of capacity building being to develop independence and sustainability. Eade explores discrepancies regarding capacity building that exist in aid agencies, describing the tunnel vision that often exists when supplying aid. According to Eade, aid agencies often become so focused on achieving capacity building goals that they target a particular people group while overlooking “the local political and cultural environment as well as the international policy context within which people, their organizations and their governments are functioning”.² Designers are often equally guilty of tunnel vision, with the end goal (product proposal) taking priority over gaining full understanding of the context for which the design is being proposed.

Eade also discusses the perception of capacity building success vs. reality. She states that training “may be successful in its own terms, but contribute very little to enabling participants to change their realities”.³ She makes the valid point that success needs to be measured in terms of sustainability; to measure success in this way requires prolonged relationship with the group that received the training/products/aid etc. Humanitarian design often gauges success based on units distributed, total geographic area reached, or successful post-implementation individual case studies. Often, products are developed for application in all contexts, with success being defined as the achievement of predetermined design goals (no matter how minimal the achievement). This may result in providing “good” design to a variety of contexts, without providing “excellent” design to any.

Three necessary characteristics for successful capacity building are identified in Eade's article: self-awareness, self-criticism, and a degree of modesty. If we apply these characteristics to humanitarian design, the result is an approach that is flexible, context appropriate, self-regulating, and asset-based. It is important to note that self-awareness and self-criticism without a degree of modesty may not result in empowerment; modesty is key in equalizing the power balance between the designer and the community being designed for. Eade comments on the power imbalance that exists within the traditional aid model:

(A) partnership that is based on a one-way transfer of resources (whether these are financial or intellectual) is profoundly asymmetrical, a fact which will tend to distort the functioning and dignity of the weaker partner, as well as fostering the hubris of the stronger one.⁴

In order to achieve a successful paradigm shift it is essential that designers become self-aware of the one-way transfer of resources that has existed for years within the traditional aid model. Only then may we think critically about the asymmetry that exists within the traditional model and begin to focus on designing for empowerment.

1 Deborah Eade. “Capacity Building: Who Builds Whose Capacity?” *Development in Practice*. 17.4/5 (2007) : 630-639, p.632

cf. Eade, p.632

cf. Eade, p.633

4 cf. Eade, p.635

A greater emphasis on development sustainability may result in higher efficacy of humanitarian design implementations. Development sustainability may be referred to as community development, and Eade discusses the damage that is often done within the traditional aid model:

Aid agencies are always in a hurry. They feel the need to spend in order to justify their existence to their constituencies and to their donors. But there are no prizes for coming first, and a lot of collateral damage can be done by taking things too fast – or indeed by packing up as soon as the funded activity is over. The workshops have been held, the participants gave positive feedback on their evaluation forms, and so capacity has been built. A year later, there is nothing to show for it. A more sustained relationship may not yield spectacular results, but these results may well be more lasting.¹

While humanitarian design may not always fall into the trap of hurrying, it is still greatly affected by the culture of hurry that exists within aid agencies. Time frame is not so much the culprit of collateral damage as is the lack of engagement with local communities. Short-term contact with communities limits the self-criticism necessary for capacity building. As previously mentioned, humanitarian design often proposes blanket solutions; the success of the design is based on testing of participants that may have occurred during the design development phase or earlier. This may lead to the assumption that a design being implemented is already successful because of earlier testing, rather than considering its success within the exact context in which it is being implemented.

An example of this mentality is Ikea's newly developed flat-pack refugee shelter. The shelter is designed to last 3 years compared to the typical 6 month life of a refugee shelter, is twice as large as traditional refugee shelters, and utilizes solar panels for electricity as well as Ikea's trademark flat-pack shipping capabilities.² However, the shelters will cost approximately \$1200 each to produce, are constructed of non-local materials (in most cases) by non-local workers, and must then be transported to their desired destination. Not only is this an immense amount of energy to expend on a product that could be produced locally (granted, not this same shelter with solar panels and flat pack capability, but in turn stimulating local economy and skilled labour production), but it also demonstrates a lack of awareness regarding sustainable development. Speaking of their design, Ikea states:

Many of the current shelters used in refugee camps have a life span of approximately six months before the impact of sun, rain and wind means it needs to be replaced. Yet long-term refugee situations mean that, on average, refugees stay in camps for 12 years.

DE and sustainable development would suggest that local skills and materials be utilized in order to develop housing solutions that would last 12 years or more, rather than needing to be replaced every 3 years. Granted, 3 years is a vast improvement over 6 months, but surely an even better solution is possible. The unfortunate reality exists that it is easier for Ikea to develop a blanket solution for worldwide refugee shelter from within Ikea headquarters than it is for Ikea to develop a specific solution for each refugee situation that exists worldwide. Sustainable community development requires a time commitment that is often considered too great (or is simply unrealistic due to funding) by designers and corporations. And yet, despite these realities, the tides are turning: buzzwords such as community development, sustainability, capacity building, and asset-based development are gaining momentum within the humanitarian aid arena. To remain relevant and increase its effectiveness humanitarian design must embrace these buzzwords, riding the proverbial wave rather than swimming behind it.

cf. Eade, p.636

Ikea develops flat-pack refugee shelters. *Dezeen*. 3 July. 2013. Web. 13 January. 2104. <<http://www.dezeen.com/2013/07/03/ikea-develops-flat-pack-refugee-shelters/>>

Chapter 5 : Community Development

I spent 2 weeks in Haiti during February 2014 as part of a construction crew providing aid through a local non-government organization (NGO). During my time there I had the opportunity to meet and speak with the director of another NGO that has typically focused on sending teams of high school students to Caribbean nations on short-term construction aid trips. The director and I had a thoughtful conversation regarding the harm vs. benefit of short-term student trips: the director admitted that there had been a realization within the leadership of his NGO that without community partnership and follow-up the effects of their short-term trips were nowhere near as successful as they hoped for. The director went on to describe the paradigm shift that was occurring within their organization, which places heavy emphasis on what he referred to as “community development”.

The term “community development” is not a new one: an internet search will reveal a multitude of articles from the 60’s and 70’s discussing the topic. However, the term has resurfaced as a buzzword within the field of humanitarian organizations, and modern literature suggests the beginnings of a shift in how aid is administered to include community development within its approach.¹ There are different types of community development, however the aforementioned NGO is attempting to work within a model known as Asset-Based Community Development (ABCD). Although the director did not use this specific term during our discussion, his description of working alongside existing local leadership demonstrated what Alison Mathie and Gord Cunningham call “engines of community action” in their article “From Clients to Citizens: Asset Based Community Development as a Strategy for Community-Driven Development”.

ABCD follows a strength-based approach, and utilizes some of the following methods:

- *collecting stories of community successes and analyzing the reason for success;*
- *mapping community assets;*
- *forming a core steering group;*
- *building relationships among local assets for mutually beneficial problem solving within the community;*
- *convening a representative planning group;*
- *leveraging activities, resources, and investments from outside the community.*²

Each of these methods are equally applicable to DE, and demonstrate a desire for capacity building while utilizing a strength-based approach. ABCD treats relationships as assets; DE should therefore have as a primary goal the facilitation of relationship within a community. This goal should remain consistent throughout the design process, the production of the design, and the implementation of the design.

ABCD pairs nicely with Eade’s three characteristics for successful capacity building (self-awareness, self-criticism, and a degree of modesty). Rather than focusing on institutional reform, ABCD focuses on community empowerment, meaning that the “role of outside agencies therefore becomes one of group capacity building to ensure that local associations are defining the community vision and mapping and mobilizing local assets and resources to this end”.³

1 Alison Mathie and Gord Cunningham. “From Client’s to Citizens: Asset-Based Community Development as a Strategy for Community-Based Development” *Development in Practice*. 13.5 (2003) : 474-486, p.477

2 cf. Alison Mathie and Gord Cunningham, p.477

3 cf. Alison Mathie and Gord Cunningham, p.482

Chapter 6 : Goals and Methodology

Goals

DE is meant to be an adaptation and confluence of modern theories from various social sciences including Economic Development, Social Work, and Refugee Studies. After investigating these theories, it is therefore helpful to summarize and list the goals of DE in order to give ordered substance to this proposal for paradigm shift. The goals of DE are as follows:

- 1) Utilize open-ended questions during the schematic design phase in order to allow for the discovery of deliverables that may not have previously been considered.
- 2) Operate with genuine empathy for the individual, group, or community being worked with alongside.
- 3) Operate based on the assertion that all individuals are creative in different ways.
- 4) Take inventory of available local assets and strengths (materials, skills, relationships etc.), and facilitate successful interaction between them.
- 5) Operate with self-awareness, self-criticism, and a degree of modesty.
- 6) Develop solutions that are sustainable and viable over a long period of time.
- 7) Prevent dependency on the entity administering aid, instead seeking equality among all entities involved in the development and implementation of the design.

Methodology

My research methodology was meant to follow my self-established goals of what I have referred to as DE.

I facilitated a focus group for my primary research involving educators who had worked abroad in developing nations and was able to recruit participants for this group through personal contacts in the Edmonton Public School Board. I chose to use focus groups due to their inherent qualitative nature; DE involves empathy, and I wished to gain perspective on the needs and day-to-day life in developing nations. My knowledge in this area was limited, and I knew that the knowledge I did possess had passed through a middle-class, Caucasian, North American filter. I relinquished my power as designer immediately, seeking to generate a list of prioritized needs based on my primary research. In this way I acknowledged that the participants in my focus groups were the experts rather than myself; I was a facilitator and collector of context-specific knowledge.

Interviews would also have been useful, however I wanted individuals to be able to converse with each other and support or challenge each other's comments. Here too the goal was to relinquish power: I would guide the conversation, yet allow it to permutate according to differing comments, quite different than the structure and relationship that exists in a one-on-one interview. Focus groups allow for "extra" knowledge to emerge (conversation beyond planned discussion questions) in a way that interviews can be limited.

The focus group was kept to a maximum of 5 participants in order to allow for ease of conversation without being overwhelming. Fewer participants may have resulted in a greater level of discomfort for participants, as they would have the spotlight on them more often. However, more participants may have caused the conversation to become less controllable (in the sense of maintaining order), as well as made it more difficult to transcribe afterwards.

The process of facilitating focus groups was much longer than if I were to use the historically utilized “designer as expert” approach.¹ Recruiting potential participants took over 1 month, and I had to accommodate various schedules as well as determine a location that was easily accessible to all participants. However, the process allowed for me to make some extremely helpful local contacts including community liaisons, caseworkers, and executive directors. These contacts will be useful for similar research and design in the future, and provided me with insight regarding education in other contexts that I simply could not have acquired on my own. DE begins with relationship, and it is a necessity that a designer be able to successfully network within the context that they are designing for. In this way the designer joins a pre-existing structure of knowledge and may glean from it’s inhabitants from the inside rather than remaining outside of the context that the designer is aiming to provide a solution to.

Interpretive Description

My study was scaffolded according to the interpretive description methodology developed by Sally Thorne. Originally used within nursing clinical research, interpretive description is meant to exceed the qualitative limits that exist in other methodologies such as ethnography, grounded theory, and phenomenology. It is inherently flexible; and it “is not and cannot be a prescriptive, circumscribed sequence of steps that will reliably lead to new discoveries”² Great care is taken in developing a research question, with the understanding that the wording of the question will drive the decisions made regarding how research is conducted. As mentioned earlier, I began my research with the question “how can I improve education in other contexts?”

Because it is interpretive as well as descriptive, this methodology embraces the subjectivity of the researcher. Thorne discusses the following as foundational underpinnings of interpretive description:

- *are conducted in as naturalistic a context as possible in a manner that is respectful of the comfort and ethical rights of all participants,*
- *explicitly attend to the value of subjective and experiential knowledge as one of the fundamental sources of clinical insight,*
- *capitalize on human commonalities as well as individual expressions of variance within a shared focus of interest,*
- *reflect issues that are not bounded by time and context, but attend carefully to the time and context within which the current expressions are enacted,*
- *acknowledge a socially “constructed” element to human experience that cannot be meaningfully separated from its essential nature,*
- *recognize that, in the world of human experience, “reality” involves multiple constructed realities that may well be contradictory, and*
- *acknowledge an inseparable relationship between the knower and the known, such that the inquirer and the “object” of that inquiry interact to influence on another³*

1 The “designer as expert” approach involves the development of a “design brief”, which is a set of goals, desires, needs, and projected outcomes for the project at hand. The design brief is given to the designer, who is expected to apply their skills as the design expert to work within the guidelines set in the design brief. While this approach often still involves a large amount of research (which may include focus groups), the guidelines (what is allowable or possible, and what is not allowable) are set before the project begins, limiting the ability to seek outcomes that differ than those projected by the design brief.

2 Sally Thorne. *Interpretive Description*. Walnut Creek, CA : Left Coast Press. 2008. Print. p.35

3 cf. Sally Thorne, p.74

Interpretive description recognizes that every study occurs within a unique context, with each participant in the study bringing unique worldviews and realities based upon experiences that are unique to each individual. This means that two people will experience the same situation in different ways; every individual has a lens through which they view the world. This is an essential acknowledgement when analyzing data, and the data that I gathered represented 6 different worldviews (including my own), with millions more worldviews left untouched.

As mentioned earlier, the subjectivity of the researcher is embraced within this methodology, and it is important to identify what influences are affecting the aim of the research. Thorne states that “it is important to surface, acknowledge, and reflect upon what ideas we hold that may be influencing us in the design and implementation of the project”.¹

There are strong similarities between interpretive description research and co-design, with perhaps the greatest being an understanding that the researcher/designer is not the expert. The goal is to learn as much as possible from those who have experience in the context that you are working within, without using your expertise to shape conversations (and consequently the research).²

Focus Groups Within Interpretive Description Methodology

The goal of conducting a focus group within interpretive description methodology is not to conduct mass interviews, but rather to utilize group dynamic in order to produce “certain kinds of social knowledge, such as the beliefs and attitudes that underlie behavior”.³ Focus groups are strong sources of primary research because they draw upon the collective creativity of the group; knowledge is developed in real time as individuals converse and discuss the question at hand. Thorne mentions that a risk with focus groups is the tendency for comfortable expression, meaning that individuals will more readily express data that is safe and “politically correct”. This may reduce diversity of material that surfaces in the group. Thorne goes on to state that smaller focus groups often function better than large ones. Confidentiality and respectfulness must be assured, and targeted, broad-based questions are most effective.⁴ The questions that I used for my focus group can be found in Appendix A: These questions acted as a foundation for discussion, allowing for flexibility according to unexpected knowledge that would arise. In this way the focus group was much less formulaic than traditional interviews; I entered the group not fully knowing what knowledge I was striving to gain.

1 cf. Sally Thorne, p.70

2 cf. Sally Thorne, p.110

3 cf. Sally Thorne, p.131

4 cf. Sally Thorne, p.133

Chapter 7 : Focus Group Results

Focus Group: Educators with experience abroad

The focus group consisted of 4 female educators with varying levels of experience in the field of education. Each individual had volunteered in different locations: Brazil and Kenya, South Africa, Ghana, and rural China. This provided a rich diversity of experience and allowed individuals to compare and contrast experiences with each other.

I began by having each participant speak generally about where they had volunteered and some of the things that they had noticed. Differences between locations became apparent quickly: one participant stated that in China “education wasn’t taken as seriously because a lot of them didn’t even expect to go to high school”. However, another participant had very different experiences while volunteering in Ghana:

In Ghana it’s only required for a child to go up to grade 6. After that they have to pay tuition, and they have to take exams to get into junior high. Same thing for high school. So they want to be there. School started at 8 in the morning. Kids had to be there at 7:30 for, basically, morning songs. And they would sing for half an hour different songs and they would be on their feet in the classroom clapping and singing and just having a good time. And then 8 o’clock would roll around and they would be sitting, reading, ready to go.

Differences in available resources differed between locations; one participant described how in South Africa they “had a computer lab there that kids had access to as well as a large library”. This was in stark contrast to a comment from the participant who had volunteered in Belize: “The library was a tiny little room and it was all donated textbooks, there was no novels or pictures books...very few”.

Despite the variety that was represented, a common theme emerged: teachers in each of the locations visited were observed as having a difficult time connecting with and engaging students. In rural China motivation was an issue, in South Africa “the curriculum...was very westernized and not applicable to their daily lives”, in Kenya and Ghana teachers lacked the basic resources needed to teach effectively, and in Belize “the government mandated that school needs to be in English, but it’s a Spanish speaking country” and “they don’t have a culture of reading”. Severe verbal and physical punishment (by Canadian education standards) was observed in Ghana and South Africa. It may be common sense that connecting with and engaging the child is the most important component of successful education, however large class sizes, lack of resources and training, and differences in educational culture clearly amplify this already challenging issue.

After our general discussion regarding education in each of the areas the participants had volunteered, I had the group express to me every aspect of education that they felt was required for educational success. This list included needs and wants, meaning that it contained a spectrum ranging from essential to more superfluous items.. Once all aspects were written down, I had the group collectively decide on priorities and ratings for the different aspects. The results were as follows:

- | | |
|---------------------------------------|------------------------|
| 1) Building | 8) Activity Equipment |
| 2) Knowledgeable and trained teachers | 9) Computer |
| 3) Water, washrooms, and security | 10) Internet |
| 4) Teacher resources (ie. curriculum) | 11) Media projector |
| 5) Writing materials | 12) Uniforms |
| 6) Books | 13) Overhead projector |
| 7) Electricity | 14) Air Conditioning |

As the group interacted, the idea of Western misguided good intentions was repeatedly apparent. One participant described course material in South Africa involving a lawn mower as an example: “they’ve never seen a lawn mower, they don’t cut their grass there”. Another individual spoke of a new washroom facility that had been constructed by a Canadian team; they had anticipated that there would be electricity and consequently built the facility without windows. The reality of the situation was different than expected:

In Belize the building had been built by volunteers from Canada, but when they built it I guess they thought they would have electricity, so when the bathrooms worked there was no light...it was completely dark. So they ended up just punching holes in walls. They had this big hole punched in the wall so you could actually see when you went to the bathroom.

Technology

When I inquired as to the relatively low importance of technology on their list, the general response was that it is not necessarily the most effective method of engaging students. One participant compared teaching styles with and without technology:

My first teaching job was in a Mennonite community, where TV wasn’t really...people didn’t have TV’s. And so, I could do anything in the classroom and kids would be engaged. And then I come here and basically you have to stand on your head to keep anybody’s attention...we’re just so inundated with visual expectations, that it should change every couple of seconds and that we should have this immediate gratification...all of those kinds of things which are kind of a part of our culture.

This statement may lead to the inference that technology is not required and perhaps may not be a healthy way of engaging students in areas where technology is not already integrated into daily life. Based on the statement above, one may go so far as to assert that technology in these areas would do more harm than good, as attention spans and levels of human interaction are modified. The focus group discussion also suggested that skilled teachers are able to teach effectively (to a certain degree) using whatever tools are locally available. One of the participants shared about a lesson they had taught in Ghana:

I did a body lesson for the grade 3’s and we drew a body on the board and started labeling it, and that was probably just as efficient as drawing a picture on the overhead, because you’re not going to have the photocopier to print and put stuff on overheads. So, I don’t know, different point of view.

A recurrent issue that emerged in discussion was the lack of funding required to maintain and develop what resources the schools did have. This created major difficulties when there were attempts to introduce technological resources, and it seems that at the moment it may not be feasible to integrate technology successfully in some of the areas that the participants had visited. There were computers in Ghana where participant 2 had visited, but a lack of infrastructure and resources limited their capability.

In that village the chief is actually a university graduate. He did his masters actually at the University of Alberta and he completed his PhD in Australia, so he was very well versed in the ways of the world and he was trying to bring in technology into his village. So they actually had a computer lab in the village with 6 computers. His goal was to hopefully have internet to all those computers. A year after we had left when I saw him the past summer it still hadn’t happened. Getting the actual lines out there to the village was costing a lot and he was struggling with that.

They continued to explain what capabilities the computers did have, as well as their limitations:

Word processing, spread sheet, very very basic. So those who were more involved in business as adults were using it, not so much kids. Because they did not have a printer to print stuff off to take it to hand in, they just had their 1 booklet to write in and that was it.

Recent initiatives such as FuseProject's One Laptop Per Child (OLPC) program have demonstrated a desire to apply technology to developing nations in order to allow for increased global connectivity while learning. As is the case with many humanitarian initiatives this is a noble effort, however based on the thoughts expressed by the participants I question the validity and efficacy of such an initiative. In order to fulfill the goals that I had set regarding Design For Empowerment my proposal would not only have to utilize local skills and materials, but also be low-tech and easily maintained with minimal funding required.

Chapter 8 : Design Booklets

Section 2

The focus group was used to develop the next section of the study. Our discussion had revealed that the learning resources required to teach culturally appropriate curriculum are often missing or lacking in non-Western educational environments. Although not expressed as missing to the same extent that learning resources are, activity equipment ranked as an important component of the educational environment. The intended outcome of the next section of the study was to produce an artifact that facilitated learning through activity, utilizing local materials and skills from the areas where each of the participants had volunteered. The participants were informed that this would potentially involve the reproduction of existing activity equipment (ie. a soccer net), production of an artifact that facilitated an existing activity (ie. sports benches), or the development of an entirely new activity and/or artifact. A booklet was developed in order to guide each participant through the design process, and to provide a matrix that facilitated the expression of knowledge they had gained through their volunteer experience.

The Booklet

Two individuals completed the booklet, representing experience teaching abroad in Belize, China, and First Nations, Metis, Inuit (FNMI) communities in Canada. At the outset of creating the booklet I realized that in order to propose a useful solution to each of these locations I would need to develop a matrix that was consistent in its completion, yet flexible in its outcome and application. The goal of the booklet was to provide a medium for the individuals to express and recall their experiences and observations abroad in an organized and coherent manner. The booklet was designed to promote flow of information in a consistent way: activities -> activity equipment -> skills -> materials -> groups -> drivers -> sketches -> development. The headings were meant to allow a logical flow, allowing for information to build on itself rather than haphazardly addressing a variety of topics. As mentioned before, the booklet was developed to guide the participant through the design process, a fact that further influenced the order of activities in the booklet.

For the first four headings, participants were asked to list in point form what they had observed while abroad. They were then asked to briefly elaborate on each of the points, and each activity concluded with having the participant describe if there were any observations that they noticed were unique to the region or different from what they might see in their home communities (ie. Canada). For example, the “skills” heading activity concluded by asking: *Were there any skills that you noticed were unique to that region/ were different than Canadian skills? Briefly list which skills and why.*

The first four headings (activities, activity equipment, skills, materials) guided the participant through the expression of raw data based on their observations. At this point in the booklet the individual was merely recalling and recording information drawn from their experiences. The fifth heading, “Groups”, requested that the participant begin to note similarities and cohesions between the data previously expressed. Individuals were asked to re-list the activities, activity equipment, skills, and materials that they had listed earlier, but this time to “group them according to what seems to fit together best.” There was no limit on the amount of groups that the individual could create, and they were encouraged to try and think of non-traditional groups (for example, a table made of ceramic that utilizes pottery skills). This activity concluded by asking participants to circle their favourite three groups, regardless of the reason why, once they had finished creating all of their groups.

Individuals then completed an exercise in determining drivers for the development of their product. Drivers were explained to be words that would help give direction to the project (“easy to assemble” and “fun” were provided as examples of drivers). Again, there was no limit on the amount of drivers that the individual could list, and they were again asked to circle their favourite three words when they were had finished creating their list.

Having now organized their raw data into groupings and developed drivers for the product, participants were invited to develop some initial sketches based on their groups and drivers before meeting with the researcher. This activity was optional, and when the booklet was developed it was expected that some individuals would lack the confidence in their own creativity to attempt such an activity. Despite this, I felt that it was important to provide the participants with independent access (independent meaning without the aid of a designer) to as much of the design process as possible. The description for this activity stated that this section of the booklet could be completed before meeting with the researcher, or completed together with the researcher if preferred.

The booklet concluded with the heading “Development”. This activity asked participants to select their favourite group out of the three that had been chosen earlier and had explored via sketches. It was made explicit that the reason for selection was entirely up to the participant; the individual was asked to work with the researcher/designer in order to develop more detailed sketches of the group that they had selected in order to stimulate the production of a prototype. At this point the booklet was complete, with the hope being that the participant had maintained independence and creativity equality with the researcher/designer throughout the entire process.

Chapter 9 : Design Booklet Results

Booklet 1 : Belize

The Belize booklet began with a note stating that the participant had spent their time in Belize instructing other teachers, meaning that school was not in session while she was there and therefore she had not been able to observe student activities within an educational environment. Based on the information provided I ascertained that the area she had visited valued interaction and communication. The participant had observed bike riding, fishing, shopping, “hanging out”, and picnics, basketball, and soccer; all of these group activities facilitate interaction and promote relationship.

The participant noted that brick was the main system for construction, and after inquiring further via email I was informed that the bricks used were made out of 2 different materials: either clay (old construction) or cement cinder blocks (new construction). Cement used was either Mayan cement, which is an orange colour, or the grey cement that North Americans would be familiar with.

As previously mentioned, the participant expressed that shopping was an observed activity; shopping baskets were used during this activity. In further email discussions, she described the baskets as being woven from a tree called the Basket Tie-Tie. Basic research revealed that the Basket Tie-Tie is in fact a palm that has taken the form of a vine. It is covered in sharp spines, however, once stripped it can be split into strips to be used for basket weaving.¹

The participant also mentioned Mahogany, Zerikote wood, Rosewood, and “some kind of pine” as other materials that were in the area.

The participant listed the words “fun”, “useful”, “easy for a variety of ages to use”, “clear instructions”, and “stands up to all weather” as drivers for the product to be developed.

Booklet 2 : China/ FNMI

A participant who had not been present during the focus group conducted earlier in the study completed this booklet. His experiences included time spent in China and in an FNMI community. He completed his booklet to reflect both experiences, and I will discuss the two communities in isolation from each other, as that is how he presented the information in his booklet.

China

Based on the information provided, the main activities observed in China were meant to teach English language skills, build relationship, and develop teamwork. An interesting variety of activities existed in this particular educational environment, including soccer, basketball, a blind obstacle course, mini stick hockey, handball, scavenger hunts, and “energizer games” (human knot, caterpillar, egg carrying game etc.).

Bamboo scaffolding, rebar, concrete, and wooden shingles were listed as materials used for construction in the area. Bamboo scaffolding was also listed as a local skill, and the participant observed this scaffolding system being utilized in both rural and urban areas.

The participant listed the words “necessity”, “accessible”, “creativity”, “fun”, and “community” as drivers for the product to be developed.

¹ Vegetation of Belize. *Field Guide to Ambergris Caye, Belize*. Web. 27 April. 2014 <<http://ambergriscaye.com/fieldguide/bzplants.html>.

This community seemed to be focused on relationship and support. The participant mentioned a plethora of activities, all of which involved heavy community involvement: “BBQ”, “art workshop”, “short films”, baseball, hockey, “fishing”, “community clean up”, “beach days”, “dodge ball, hockey, basketball, kickball, hide & seek, soccer, pool, capture the flag”, “race to the lake”, “Aboriginal Film Festival”, “water park”, and “paintballing”. The participant made an interesting comment regarding activities within the FMNI community:

The activities held in the FMNI community weren't necessarily unique to the region, however, when compared to the western community, I would say there was more community involvement, but not community support in the FNMI community (people wanted to participate, but they didn't want to get involved by helping).

Deer hide and feathers were mentioned as materials that were used within the community for art sessions, and the words “popular choice”, “sustainable”, “inclusive”, “fun”, and “community” were chosen by the participant as drivers for the product to be developed.

Project Goals

Upon considering the information presented in each of the booklets, I quickly realized that many similarities existed. Let us look at the drivers developed by the participants and view them as a whole, grouping them according to similarity:

- Fun
- Creativity
- Useful
- Easy for a variety of ages to use
- Clear Instructions
- Accessible
- Stands up to all weather
- Inclusive
- Popular Choice
- Community
- Sustainable (used in this instance to mean long-lasting, or existing apart from external intervention)

The word “fun” appeared as a driver in both of the booklets, and the importance of accessibility and community was apparent. In each of the locations visited relationship building seemed to be an important aspect of daily life. It is true that the desire to build relationship is inherent to humans, however each of the participants observed a heightened effort to build relationship when compared to the activities observed in their home communities within Edmonton, Alberta, Canada.

Though similarities existed regarding proposed drivers and observed relationship building activities, there were considerable differences in the materials and skills observed by each of the participants in their respective visited locations. The similarities and differences I noted were perfectly in line with the notion of Design For Empowerment, and I sought to provide a proposal that was tailored to each location that would facilitate learning and relationship building in a fun way while utilizing the skills and materials that were unique to each

Booklet Intent Variations

I feel it is important to comment on the variances that had to be accepted as the realities of the study presented themselves. The booklet was designed in a way that afforded as much creative control as possible to the participants during the design process. The original intent was that sketches and proposals would be developed through collaboration between the participant and the researcher in the form of physical meetings. However, due to the demanding schedule that education places on teachers, I was unable to arrange for physical meetings with the participants after their completion of the booklet. While I did find this to be disappointing, the participants were helpful in responding to follow-up emails, which allowed for continued input into the design process (albeit less input than if we were to meet in person and develop sketches together).

Chapter 10 : Proposal

Overview

My original intention was to develop 3 different product proposals for each of the 3 visited locations, utilizing the skills and materials from each region as mentioned earlier. However, while this was a valid and reasonable approach, the resulting proposal instead resulted in a single concept that was applicable to all three locations, with the only difference being the skills and materials used to implement the concept.

The concept is, in essence, a game for learning. It involves a simple grid structure that has openings on its front and top. There is a writing surface adjacent to each opening on which, for example, different numbers can be written. In this particular instance of the concept there are five openings in total (the amount of openings may be modified if more or less openings are desired). For this example, let us say that the numbers 5, 6, 16, 30, and 56 are written on the surfaces adjacent to the openings. A soft ball (ie. a soccer ball) is given to a student, and the student is asked a question: for example, $5 \times 6 = ?$ The student then gets 1 point for answering correctly, and a bonus point for either kicking the ball or shooting the ball like a basketball into the opening to which the number that is the correct answer has been assigned. Therefore, if the number 30 has been written on a surface adjacent to an opening on the front of the grid structure, the student will attempt to kick the ball through the opening. If the number 30 has been written on a surface adjacent to an opening on the top of the grid structure, the student will attempt to shoot the ball like a basketball into the opening. The goal of the game is of course to try to get the most points.

The preceding explanation describes the activity in its simplest form, however there are many variations of the activity that may be implemented, many of which I am certain I have not yet explored. One such variation would be to ask the student to determine the combination of numbers that is required to produce a specific outcome. If we use the numbers in the aforementioned example, and a student was asked to determine which combination of numbers could be added to produce an outcome of 41, the student would attempt to kick or shoot the ball into the openings marked with 5, 6, and 30. This variation, as well as the previous example, can be modified further by utilizing multiplication, division, subtraction, or any other math function. This allows the activity to be adaptable to a variety of ages and levels of learning. In addition, the activity could be used to teach language skills, history, basic geography...any subject that involves factual learning could make use of this activity as a fun way to augment teaching.

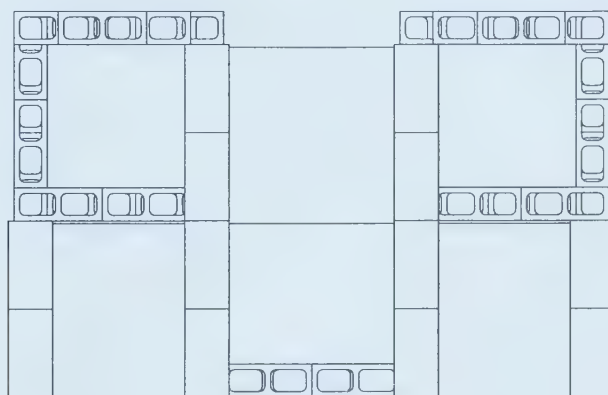
This simple, easily constructed piece of activity equipment is not only adaptable to a variety of ages and subjects, but is also usable outside of a learning situation. Basketball and soccer were both activities observed in all of the visited locations, and this equipment provides a unique variation on both sports. While it may not be used by older children who will likely prefer the established sports of basketball and soccer, younger children would almost certainly use the equipment because of its simplicity. Children on the playground quite often create new games, and this equipment would encourage both creativity and the development of motor skills outside of class time.

This proposal may be applied to any context, and I explored the materials and skills in each of the three locations that the participants had visited. The result is one concept applied to three different cultural contexts as three different iterations. As such, each of the iterations should be viewed and critiqued in isolation rather than viewing the three as a whole; the success of the proposal will almost definitely vary across each of the implementations. As already mentioned, the skills and materials used for each of the three implementations were derived from the information provided in the design booklets completed by the participants. After initial sketches and designs were developed, the participants were sent a brief description of the proposal along with the designs and were asked for feedback regarding their perceived potential success of the proposal in the area that they visited.

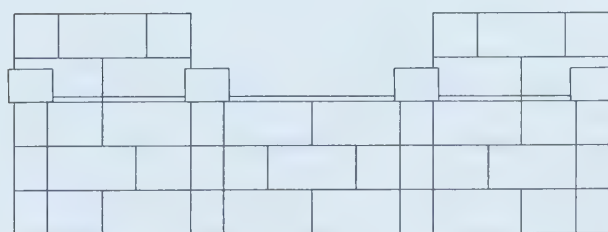
Belize

This implementation utilizes cinder block, cement and Basket Tie-Tie as materials in conjunction with masonry and basket weaving. Vertical components are constructed out of cinder block and cement, while any horizontal components required are constructed out of woven basket tie-tie and held in place by being tied to cinder blocks on either side to allow the horizontal surface to stay stationary in tension. The cinder blocks also function as the writing surface that allows for numbers or facts to be written with chalk adjacent to each of the openings. In addition, the structure acts as a large writing surface, and children can use chalk to draw designs on the structure and add to its overall aesthetics.

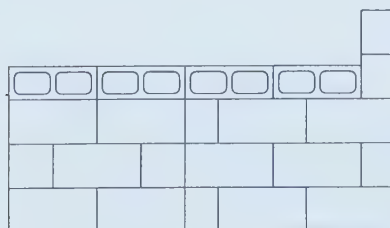
The resulting structure is durable, stands up to all weather, and is easy to construct and use: each of these characteristics were listed as drivers in the participant's booklet. The design also allows flexibility in the material used for construction, and can be built using any of the types of bricks and cements observed by the participant.



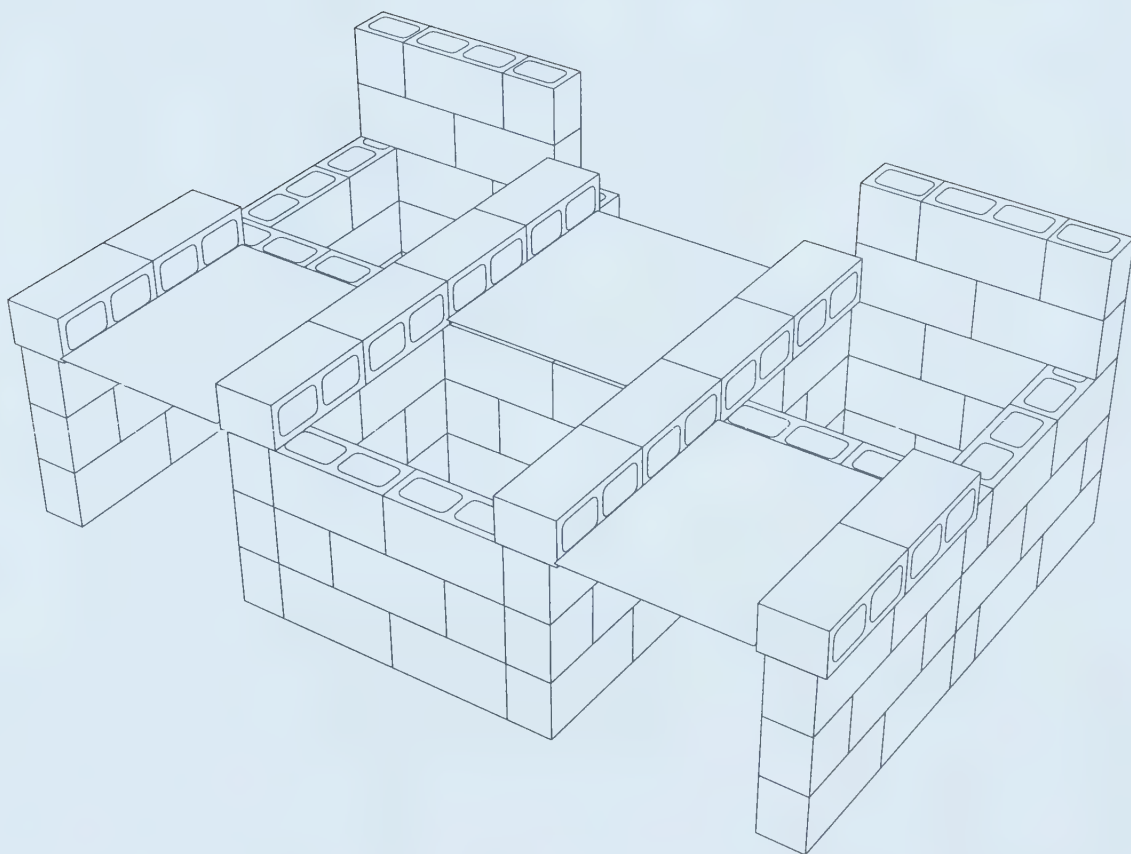
Top View



Front View

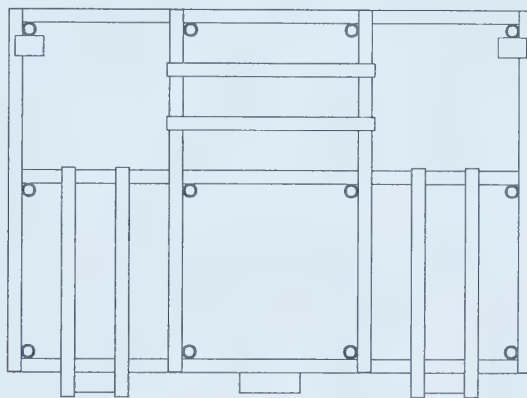


Side View

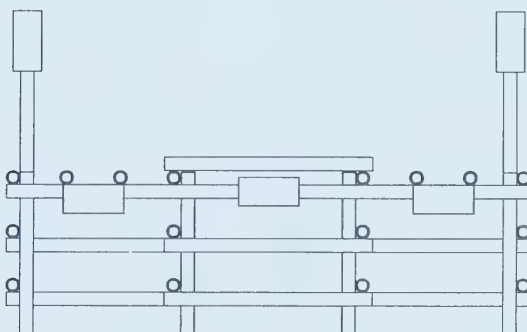


China

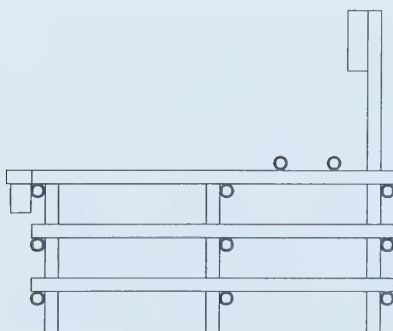
Bamboo is used as the primary material for construction in this iteration of my proposal. The method of construction is similar to that used in building the bamboo scaffolds observed by the participant. Sections of bamboo are lashed together to create the grid structure, resulting in a lightweight yet sturdy design. Bricks tied onto the bamboo adjacent to each of the openings provide the required writing surfaces, with bricks being tied onto poles adjacent to the holes at the back of the structure to allow for improved visibility of the numbers or facts assigned to those holes at the back of the structure. If desired, the sections of bamboo can be engraved with designs to allow for student inclusion in the construction process and to add to the overall aesthetic of the design.



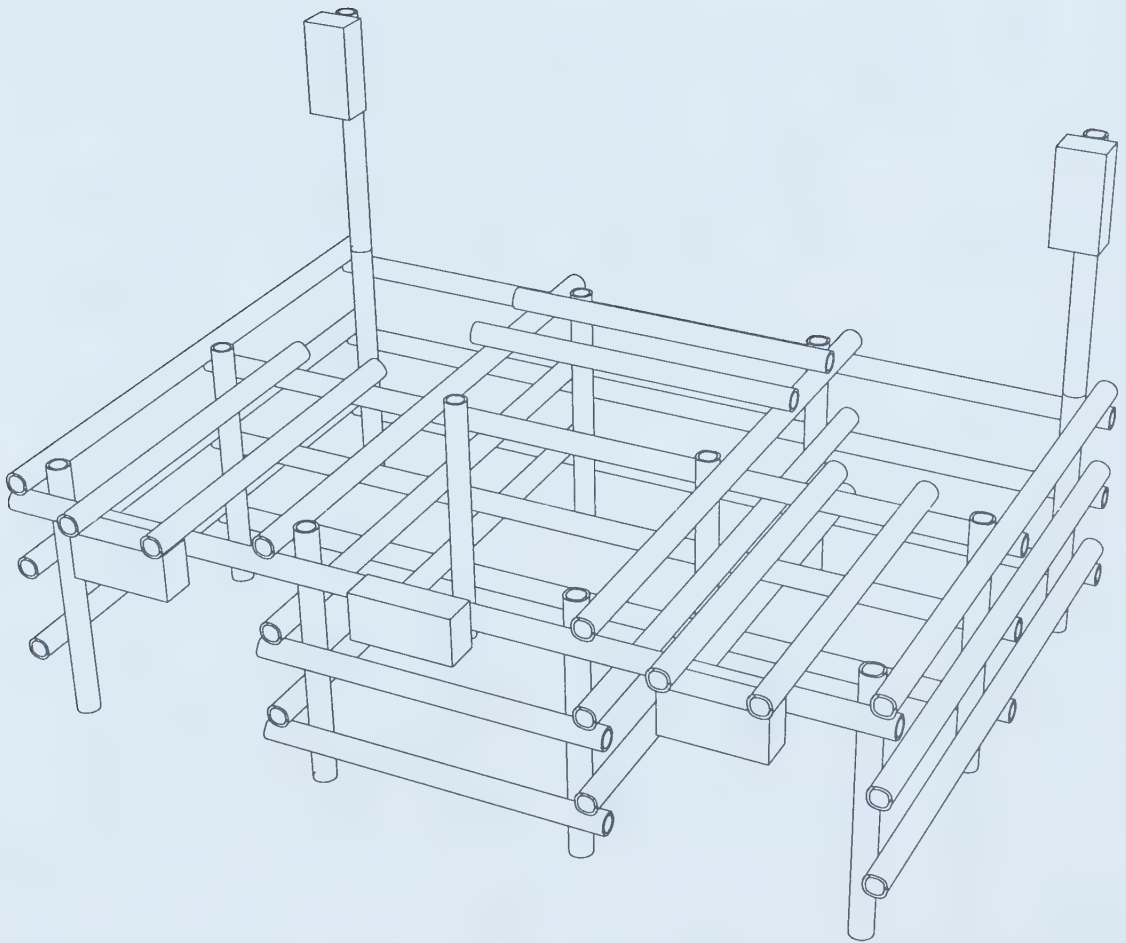
Top View



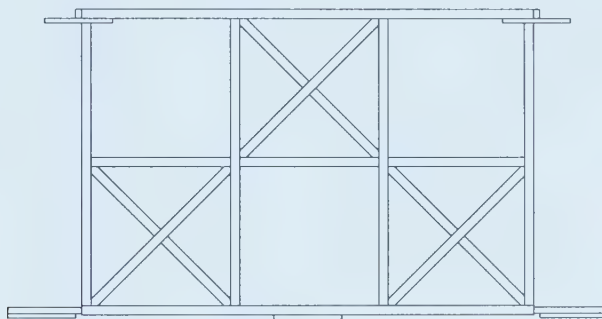
Front View



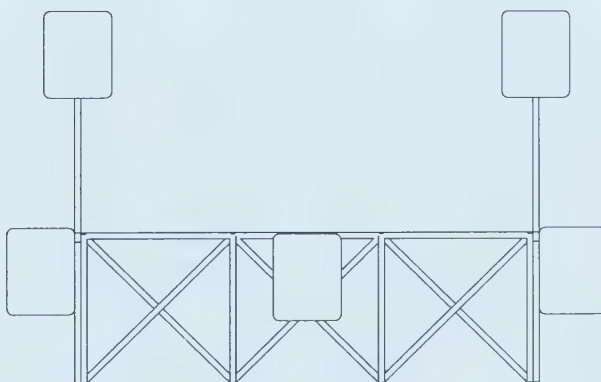
Side View



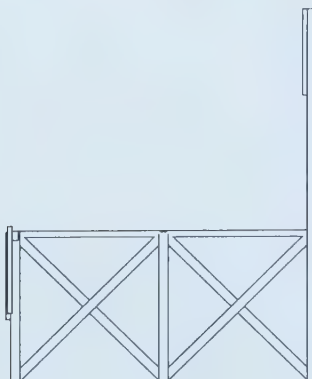
The materials used for this implementation resulted from the participant's mention of donated sports equipment observed in the community. After inquiring further, I learned that there was an abundance of broken hockey sticks observed. The result is a structure built entirely of broken, no longer usable hockey sticks. This not only includes an element of sustainability, but also introduces an element of fun and play as the designs on the hockey sticks contribute to the overall aesthetic of the structure. The hockey sticks are fastened together using metal screws, but could also be fastened using nails if screws and a drill were unavailable. Small whiteboards fixed to the structure provide the writing surfaces required to assign numbers or facts to each of the openings.



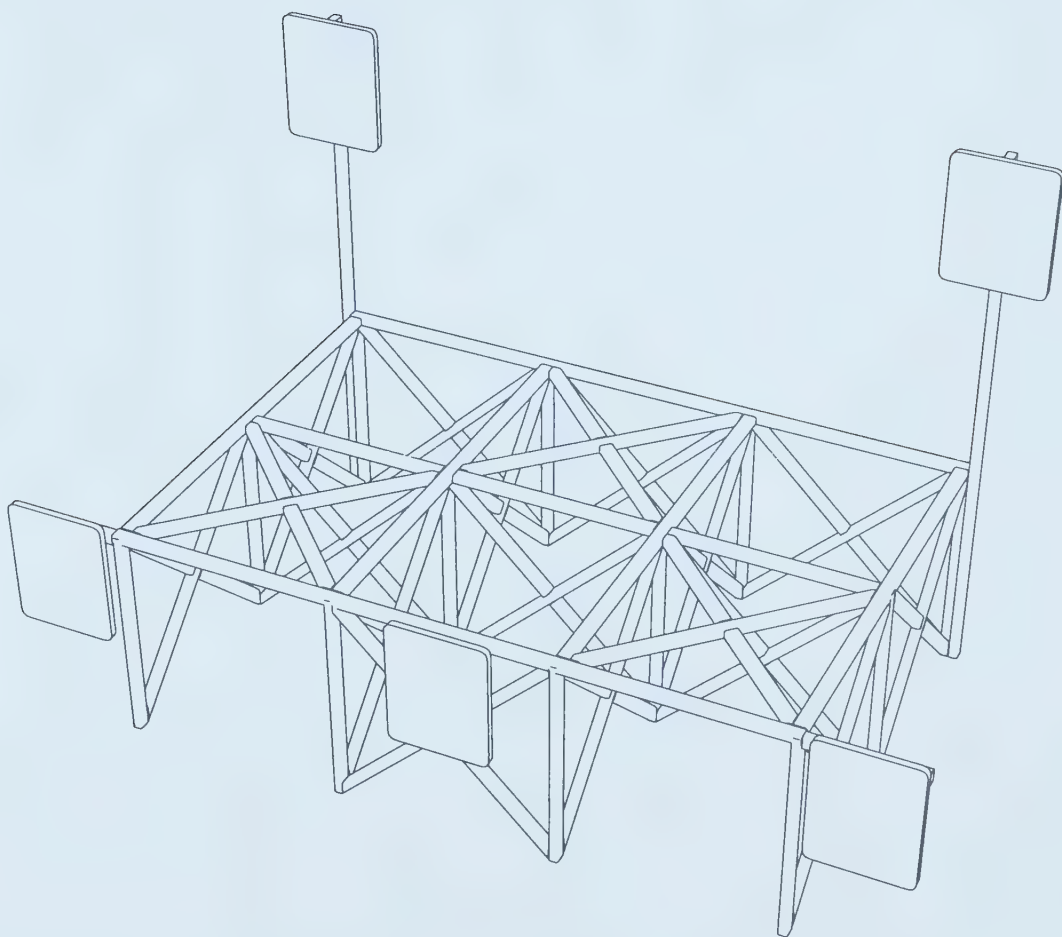
Top View



Front View



Side View



Chapter 11 : Conclusion

Feedback

"I love the prototypes you have developed. I think they have a lot of flexibility and will provide educational opportunities as well as free imaginative play." - Participant 4

This response was part of a short email reply sent to me upon my request for feedback regarding the prototype designs that I had developed. While it is unfortunate that this is the only feedback that I received from the teachers (their schedules made it impossible to meet in person, therefore email contact was all that was manageable), this feedback does speak directly to some of the goals that I had set for the project. Flexibility was an essential feature based on the information that I had gathered from the design booklets; the design had to be simple enough that it could be constructed locally and implemented in a variety of environments. Providing educational opportunities was an obvious goal, and I was delighted to hear feedback regarding "free imaginative play". While this terminology was not explicitly mentioned during the focus group or in any of the design booklets, participants continually mentioned the sense of community and relationship building that they had observed during their experiences in other communities. Free imaginative play speaks to relationship building within a dynamic, creative environment, and addresses every child's basic need to learn and be expressive while exploring new methods and ways of doing things.

Initially it was troubling to have received so little feedback on my prototypes, however I have come to realize that, as stated in the introduction to this thesis, my work is not meant to be a finished product but rather an imperfect discussion vehicle. It is true that I would like to gain feedback in order to further develop my prototype designs into more applicable and usable products, however it is even more true that I wish for the failures and imperfections of my design to stimulate critical thought and inspire others to explore the notion of Design For Empowerment and any other related modes of thought. Therefore it is my hope that my written work and proposed prototypes are continuously viewed as an attempt at employing a new approach to humanitarian design rather than as a prescriptive proposal of design methodology.

Recommendations:

I consider the gallery exhibition to be the next step for this proposal, as feedback regarding the design is generated during such events. However, feedback from these types of venues must be carefully considered, as the individuals providing feedback will likely not be from the community for which the prototype is being proposed. Therefore, using this carefully considered feedback to make any necessary alterations, the next logical continuation of this project would be to implement one or all of the designs in their intended communities. After implementation, regular contact with community members would allow for dialogue regarding the efficacy and success vs. failure of the prototype. As the goal of DE is to allow for the community to alter and adapt the prototype without the direct help of the designer, I would work within a consultant role and would attempt to structure the conversations that I had with community members in such a way that I would facilitate their ability to problem solve on their own, helping to provide suggestions for improving upon the design while giving responsibility to the community to make any required changes. Because of the responsibility required by the community, it would be of the utmost importance to locate a community that could be receptive to such an approach, and the amount of responsibility initially given to the community would likely vary across different contexts.

At this time my role as designer would be complete. I would continue to work within a consultant capacity for as long as the community desired, at which point noticeable success or failure would be apparent, allowing for evaluation of the success of the implementations.

Conclusion

While this work represents personal paradigm development on my part, it represents equally the potentials and possibilities of design when operating under a non-traditional mindset. Beyond the scope of my proposed design, the greatest success and ultimate goal of DE is the realization of a community that they are all designers themselves (albeit in different ways and to different degrees), resulting in the realization that they are capable of problem solving and developing and constructing solutions for themselves using materials and skills that are already readily available to them.

DE seeks to incorporate contemporary concepts from adjacent relevant humanities such as Economic Development and Social Work in order to align the field of design with other fields in a way that benefits the field of humanitarian aid as a whole. The tenets of co-design, strength based approach, capacity building, and community development and synthesized and combined in a way that allows each concept to complement the other. They are then applied to design, resulting in a design approach that would have the designer focus more on the result and human impact that a product may have than on the product itself.

Through my work I have discovered that DE offers a set of ideals that one strives to achieve, and though in most cases these ideals will not all be achievable, as long as the aforementioned ultimate goal is kept in sight then progress will be made.

In my work with educators who had worked in Belize, Ghana, China, and FNMI communities, there were times that I was frustrated by the inability to achieve the ideals that I had established. However, I am now confident that my work is successful and offers a valuable contribution to the field of humanitarian design, and others who venture outside of non-traditional paradigms should feel similar solace in knowing that their work is aiding in the evolution of a more dignified, more sustainable, and more people-based approach to design. It is my hope that others will criticize and development my proposed prototype as well as the concept of DE, in order that a more successful design may be developed alongside an enhanced, human-based approach to design.

As mentioned in the introduction of this document, in no way do I consider this study to be conclusive or terminal in its proposal. In order to properly formulate criticism to the thoughts that have been presented, I encourage all to gain further exposure to adjacent humanities through secondary research and engagement with individuals who are active in these other fields (ie. social work), for it is through interaction that knowledge is truly gained.

Appendices



CONSENT FORM for Participant

Part 1 (to be completed by the researcher):

Title:

Design for Empowerment: Developing New Solutions for Education in Protracted Refugee Situations

Researcher: Mike Buss

Phone Number: (780) 660-6845

Part 2 (to be completed by the research participant):

Yes

No

Do you understand that you have been asked to be involved in a research study?

☐
☐

Have you read and received a copy of the attached Information Sheet?

☐
☐

Do you understand the benefits and risks involved in taking part in this research study?

☐
☐

Have you had an opportunity to ask questions and discuss this study?

☐
☐

Do you understand that you are free to withdraw from the study at any time, without having to give a reason and without penalty, and that your data (recorded comments) cannot be withdrawn?

☐
☐

Has the issue of confidentiality and anonymity been explained to you?

☐
☐

Do you understand that the conversations will be audio-recorded and transcribed without identifying information?"

☐
☐

Do you understand that portions of the final research may be published in professional journals or presented at conferences?

☐
☐

Who explained this study to you? _____

I agree to take part in this study:

YES ☐

NO ☐

Signature of Research Participant _____

(Printed Name) _____

Date: _____

Appendix B: Focus Group Questions

+ Please briefly describe your experience regarding education abroad

+ What educational aids existed in your visited location? (Furniture, tools, toys etc.)

+ What was effective about education in your visited location?

+ What was ineffective about education in your visited location?

+ What did you feel was missing from the location? (objects, furniture, facilities etc.)

+ In order of priority, what do you feel is most needed to improve education in your visited location? (objects, furniture, facilities etc.)

+ What types of issues do you think may exist regarding the implementation of a solution for the aforementioned needs for education in your visited location?

+ Do you have any other comments/ suggestions to make regarding the implementation of new solutions for education in your visited location?

Appendix C: Focus Group Transcription

Researcher: Alright, so I guess why don't we go around first and just tell me about your experience. Like where you went, what you were doing, that kind of thing so we can just start by knowing where everyone was. Go ahead

Participant 1: Umm I was in South Africa just outside of Cape Town. And I went there for about two and a half weeks and did some tutoring in a school there. So it mostly consisted of us pulling kids out and working one on one as well as doing like a sports program.

Participant 2: Okay I went to Ghana in the summer of 2008, umm and I taught in a university primary school for the professor's kids so quite a rich school there I taught grade 2 and there was 52 students in grade 2 class, and I taught grade 4 for a little while and there was also about 50 students in that class as well. During that trip we also went to...so that was in Accra, the capital of Ghana, and then we went to a town called Ampabame outside of Kumasi and we taught school there and I taught grade three and there was approximately 25 students in the grade 3 class. With it being a small village there was very few resources, such as one chalk board eraser for the whole school. So I spent 4 weeks there, 3 weeks at the rich school, and 1 week in the village school.

Participant 3: I was in China, I would go for a month long for the past couple summers, and we would be running summer camps. So we were doing most of the teacher. We had translators, who would obviously translate. But 2 of the weeks, I went the first time with my school, we just kind of volunteered in the classroom, and we would occasionally teach and sometimes we would just kind of sit beside students and help them with their work. That was in a rural school. It seemed...do you want me to talk about what I noticed?

Researcher: Yea, sure.

Participant 3: In the rural school, education wasn't taken as seriously because a lot of them didn't even expect to go to high school. And going to high school there really determined where you go to college so you want to go to a good high school. So already by grade 9 there's a lot of pressure on you because your tests will decide the rest of your future. But in that school because a lot of our graduating, they just seemed apathetic about what they were learning because it's a farming community so they just wanted to work more. And teachers seemed to be more lecture style and it wasn't as interactive, and we had talked with other people who helped us run the camps that we meet with every year and know the school well said that the teachers there are kinda starting to lose motivation too because they know their students don't want to learn. So, I know one of our volunteers, she was really passionate that they would have better education, because they aren't really getting it in that school, and that's a big school it was about like over 1000 students for a junior high and that was junior high and then they had a really small senior high because most of the students don't go to senior high. They had one like, I think a quarter of them would go on to high school. Maybe that's all I'll say for now, it's all coming back to me.

Participant 4: I traveled to Africa, it was in Kenya for 3 weeks teaching a group of teachers. So there was 45 teachers in the group. And basically it was because the Kenyan government is trying to get away from the lecture style and is trying to develop some other teaching methods and so they had us come in and teach a course in literacy and special education, that kind of thing, so we were there teaching that for 3 weeks. And really overwhelmed by how little they had. It is kind of hard to bring the things that we have from here and expect that they could actually use those same kinds of strategies in a classroom where you had 50 students and people were sitting on the floor and there was 1 book in the classroom.

So it was a very different, so we had to do a lot of changing our expectations and changing our strategies as we went along as we learned about where they were coming from. And then I also this past summer went to Belize, where the government has mandated that school needs to be in English, but it's a Spanish speaking country. And I was teaching a course in language arts methodology and trying to incorporate English as a second language, like what are those strategies that you can use.

And the interesting thing there I found was that they don't have a culture of reading. The teachers all said, we just don't have a culture of reading, we don't read, it's not something that we do. And so when I asked the teachers, and again there was about 42 teachers, about 3 people put up their hand as being readers...and they're the teachers.

Researcher: Well, we've mentioned a bit like you know 1 chalk eraser for the school and 1 book for the classroom, so let's talk a bit about I guess the facilities and tools that existed where you were, or didn't exist.

Participant 2: Well the desks in Ghana were wooden. For the elementary classes that we were teaching they were packed in and most of the chairs were broken, they had no back, they were basically just a board of wood that you sat on. In the university primary school they had 1 notebook for each subject, so that was pretty good, and the students could purchase through their teacher a pencil or an eraser for approximately 10 cents Canadian per item. And students would come with money and purchase those kind of items when they did need them, they weren't just given out. This school had a library that was full of resources donated by actually students at the University of Alberta and other organizations that they had partnered with, so they were quite wealthy in resources. Each classroom had 1 teacher and 1 EA, and the EA all he did was mark. There was no interaction with the students like you would see here in Canada, where they are helping on assignments and helping with behaviour, and getting things done in the classroom, all it was was marking. And when he finished his marking he would pull out his novel and he would read. In the Ampabame village school, as I said before, there 1 chalk board eraser, the desks were even more in shambles and the kindergarten room had no walls...it was just a roof held up by some lumber. They were in the process of building a new kindergarten, and it is up now, but at the time it wasn't. They had 1 room for each grade in that school and there was no actual washroom facilities. They would just go out the door, do their business right outside the door and come back in and continue class like nothing had ever happened. The kids in that school had 1 notebook for all of their subjects, and that was it, that was the whole school year. And they couldn't get their resources such as pencil and erasers the same way as the other school, it was a lot more limited. In that village the chief is actually a university graduate. He did his undergrad in Ghana at the university of Ghana. He did his masters actually at the University of Alberta and he completed his PhD in Australia, so he was very well versed in the ways of the world and he was trying to bring in technology into his village. So they actually had a computer lab in the village with 6 computers. His goal was to hopefully have internet to all those computers. A year after we had left when I saw him this past summer it still hadn't happened. Getting the actual lines out there to the village was costing a lot and he was struggling with that.

Researcher: Sound similar to any other situations?

Participant 1: The school that I was working in, I wouldn't say it was too much different from here. Kids had resources to materials they needed. The one thing I found a lot about the curriculum though, it was very westernized and not applicable to their daily lives. We were talking about lawn mowers one day and they've never seen a lawn mower, they don't cut their grass there. So, stuff like that was hard for kids to connect to and make learning more intentional. Another thing was they had these readers that they worked through but most of the kids just memorized and that's how they made it through school was memorizing and moving on, especially reading. So, they also had a computer lab there that kids had access to as well as a large library.

The group I went with half the group went to another school which was just fairly probably about 5 minute drive away. And a lot of those kids were from the township close by, so it was a lot rougher and materials there weren't as high; kids there didn't really care to be at school. There was a lot of roughhousing that happened and lots of kids wouldn't show up to school half the time. Same thing with washrooms, like there was a washroom but you walk outside to this little building. Where the school I was in had nice washrooms too.

Participant 3: The rural school that I was at didn't really have any technology or air conditioning, and obviously in southern China it's really hot; they just had fans. It was really basic, like their desks were like these but really not taken care of and they should be replaced. I don't think students had a lot of materials but I'm not that sure, probably depended on what their families did. I didn't get to see the library, so I'm not sure there either.

Participant 4: In Africa there was very little. It was very limited. We went into 1 classroom where the teacher had painted the alphabet on the wall, but that's the only thing we saw. And they didn't have any bulletin boards or papers or anything on the wall at all. They were lucky if they had a chalkboard. When we were there we were trying to use an overhead to teach the class and the electricity didn't work most of the time. So it was really difficult that way. The bathroom was just a hole in the ground. In Belize the building had been built by volunteers from Canada, but when they built it I guess they thought that they would have electricity, so when the bathrooms worked there was no light it was completely dark. So they ended up just punching holes in walls. They had this big hole punched in the wall so you could actually see when you went to the bathroom. The library was a tiny little room and it was all old donated textbooks, there was no novels or picture books...very few. It was really limited.

Researcher: So assuming there is electricity everywhere, how important do you think...like even here I guess, let's talk about here and there, how important is technology, in terms of computers. Did you see them being used a lot or?

Participant 2: There was that computer lab, we took a peek into it, and that was for the whole village. But there was no internet to do research or experience the world. It was very much what's on the computer is what you got.

Researcher: So what was on the computer?

Participant 2: Word processing, spread sheet, very very basic. So those who were more involved in business as adults were using it, not so much kids. Because they did not have a printer to print stuff off to take it to hand in, they just had their 1 booklet to write in and that was it. In comparing to here, here a teacher doesn't have the network for a few hours and they panic, or if their smart board won't turn on they panic, or if their light bulb in their overhead goes out they panic. There, there was no such thing and they did just fine. It was just a different teaching style. Writing on the board, doing thing orally and maybe demonstrations. I ran a lesson talking about solids versus liquids, so I couldn't show a video, couldn't show pictures, because there were none to show. And I was like how am I going to get grade 2's to really understand solids versus liquids, I don't see any liquids around to compare to. And then I remembered that there was a washbasin in the back of the classroom, so then we talked about dust versus water in the washbasin, and how they are different. So it's just being I think a little bit more resourceful, and flexible.

Participant 3: Does it help you to clarify before we start talking, what location we are talking about?

Researcher: If you want. General is fine too. Because the main difference would be if you are talking about locally versus somewhere else, but otherwise I'm just...whatever helps education. That's why I was talking about technology in general, because I'm curious about too here, the role you see computers playing or internet, or any of that. Because obviously even before when I was in school, computers are a totally different role than what they were. So do you think it's important that kids in rural china have access to internet, or is that a western thing?

Participant 3: I think in terms of how technology is used it seems like the educational approaches are different. Like here technology seems really important because it's about engagement, you want to really get your students to interact and be interested in what you're teaching. Like video clips, and as much media and things like that seems to really engage students here and that seems to be something we really do consider when we are putting lessons together. But there that didn't seem at all the focus of preparing for lessons. Students either cared about their education or they didn't. And it wasn't about engagement, it was about "I'm motivated because I want to go to college" and getting into college there is just another story. They don't have the flexibility to change majors and things like that once they, if they do get into university. They have to write all sorts of entrance exams and things that are...the expectations are a lot more there.

Participant 1: I didn't see a lot of how computers are used in the schools. I know they were trying to set them up a lot more, especially in the one school where I wasn't actually in. But for the most part I think it was used mainly to gather information and stuff. But one thing I was kind of interested in, I found interesting, was the cell phone use there. The school I was at was kindergarten to grade 7, and a lot of the grade 7's had cell phones already. And I think part of it was a safety thing, especially for those who could afford it. But yea here I think a lot of technology is also for the social aspect of it, and for communicating between each other. There I don't see that as being as prominent.

Participant 4: Interesting because I think in the variety of places that I've taught, there's been quite a difference. My first teaching job was in a Mennonite community, where TV wasn't really...people didn't have TV's. And so, I could do anything in the classroom and kids would be engaged. And then I come here and basically you have stand on your head to keep anybody's attention. You know it's a much more...plus we're just so inundated with visual expectations, that it should change every couple of seconds and that we should have this immediate gratification and...all of those kinds of things which are kind of a part of our culture and think. And so certainly in Africa there was a really high value on education and it was considered a privilege. So it was a much different attitude I think, that they were so anxious to get whatever they could. Whereas here we just take everything so much for granted. This year I have a student in my class who has leukemia, and I went into the hospital to visit him. Its just an interesting reception because he said to me "I used to say aww I have to go to school today" and he said "I just wish I could go to school today", and that's changed so much for him. But I think that most of the time it's just something that we take for granted, and it's such a gift in a country like Africa, where it's highly valued.

Participant 2: I agree with you 100 percent. In Ghana its only required for a child to go up to grade 6. After that they have to pay tuition, and they have to take exams to get in to junior high. Same thing for high school. So they want to be there. School started at 8 in the morning. Kids had to be there at 7:30 for, basically, morning songs. And they would sing for half an hour different songs and they would be on their feet in the classroom clapping and singing and just having a good time. And then 8 o'clock would roll around and they would be sitting, reading, ready to go. They would also have early morning assemblies, and students would have to stand during assembly and once the assembly was over then they would actually sing and clap and march off to class. And they would be marching. They were so happy to be there, and that was exactly what their song that they would sing marching off to class goes "so happy today". Basically I'm so happy to be here, so thankful to be here, so thankful to have this privelege.

Participant 3: We should teach our students that song

Researcher: Totally

Participant 1: When I went to South Africa I was expecting something like that, but it was not at all in the school I was at. A lot of the students in class misbehaved, many kids were sitting outside of classrooms because teachers did not put up with a lot. One student that was actually in our tutoring room a lot wasn't allowed in class because he hadn't gotten a haircut. So until he got a haircut he couldn't go back into class, which I thought was a little crazy. Just the mentality at that school was kids didn't really care if they were learning.

Researcher: Now, do they pay tuition in South Africa?

Participant 1: I believe they do, I don't know what it would be but I think.

Researcher: Tell me a bit about the struggles you saw on the teacher's side of it, like the local teachers. Did it seem to be similar struggles to here? I mean, it's different when you don't have the facilities or the resources but if you're not allowing a kid in your classroom because he doesn't have a haircut...what did you see there as the biggest struggle, maybe we can say that.

Participant 4: I think for me because I taught groups of teachers both times the biggest struggle for both groups was that they didn't have any resources and just the frustration of saying "okay I have to teach 45 students with this 1 book, and how am I going to be able to do it? And they're not wanting me to do rote memorization anymore, so what am I supposed to do?" And just feeling very frustrated with kids not coming to school with what they need either. You know kids would come to school, but they wouldn't have a pencil or they wouldn't have a book.

Participant 2: I would agree with that, with the resources piece. Both of the schools that I was with were partnered with the U of A, so by having us go there we also brought resources for them, which they really appreciated. And you could see that they were well used, they were using every piece that we had brought and years before us and years after us. They were so thankful for that, because like you said 1 book, so many kids...it's very difficult.

Participant 1: I'm not really sure, because I wasn't in contact with a lot of teachers in the classroom so much. In some ways I would say the management of it, because I think a lot of the teachers wanted that strict class where everyone is behaving and students were just not. And you could kind of tell based on some of the teachers if they were liked better because of how they taught, students connected with them a lot more, and they enjoyed those classes.

Participant 3: I think a few things. They had really big class sizes. Like I said the population at the school was big. And in one of the classes I was in I noticed that there were at least 5 people sleeping. I think they felt really discouraged and kind of hopeless, like they already failed just because of where they had grown up. They knew they weren't going to leave there. So that's, I think, one of the struggles I saw. And I don't think the teachers really varied their instruction to do anything different or accommodate to different learning styles that I've noticed. I mean I don't want to say too much because their instruction was in Mandarin so I couldn't tell sometimes exactly what they were lecturing on or what they were doing.

And I know in terms of like the quarter of students that will go on to high school they were kind of hand selected, like the teachers knew the gifted students or they would see potential in some students, and what I overheard from my teacher talking to the headmaster there was they kind of invest in the few that will maybe go on to high school and then maybe do something else. For the most part that wasn't the majority of students.

Participant 2: To add onto your classroom management comment, in schools that I taught in they used physical punishment as discipline. A student in the grade 2 class the first day we were observing gave the wrong answer and got walloped in the back of the head. A grade 4 class the kids who didn't do their homework had to stand in a line with their palms up and the teacher came along and hit them with a stick, that you didn't do your homework. I saw another teacher grab a student by the ear and pull them to where they needed to be. And that was their normal, my jaw hit the ground the first time I saw that, I was like oh my gosh what are you doing to this kid? But to them it was their normal. And we had really close interaction with 2 local teachers and I got into a big discussion with 1 of them. And I was like "why do you guys use this physical punishment?" And he goes "well how can you not?" and then talking with students about it as well they were like "well I would rather get hit than have my privileges taken away, so I kind of prefer this way rather than what's happening there...over here in Canada". It's an interesting perspective that I didn't expect. You know why would someone want to be physically harmed more-so than have privilege taken away.

Participant 1: And I witnessed a lot of verbal punishment. Just yelling at kids and telling them where they should be, where they should go.

Researcher: Now do you think that's because there is a lack of teacher training? Like who are these teachers I guess, do you know where they came from or what kind of training that they had?

Participant 2: The 2 that I worked with had actual university training. I don't know if they had a teaching certificate like we do, but they did have training and with them spending time with us they were actually getting University of Alberta credit, basically as extra training for them. So it was a good interaction between the 2 systems. We did spend a day in a high school just observing and in the class that we were sitting in 1 boy fell asleep, and I'm going "oh my goodness, what's going to happen to this boy?", because we've seen in 2 other schools physical punishment...this kids probably about 14 or 15 years old. What's going to happen to him if they're doing these things to these younger kids. I was really impressed with the teacher that, you know when he fell asleep he tapped him on the shoulder and said "go run 2 laps of the courtyard and then come back" and that was his wakeup and it was like okay you know what that's not so bad to get the blood moving and hopefully help him refocus. It was much more positive in my mind than seeing him get injured.

Participant 4: I guess as far as training goes, we were there actually providing training and they were getting credit for it. So it was part of an agreement that they had with the university here and with their church group that was doing it. And so they were providing , this was in Africa, over a period of time they would get so many credits so that they could hopefully improve their education and improve their salary. And in Belize the government actually requires that you take upgrading courses every single summer. And so all teachers have to do it for 2 weeks every summer. And so we are just...our course was one of the those approved courses to do that PD training.

Participant 1: I'm not sure in South Africa what training the teachers had.

Participant 3: It depended...like in the rural school I'm also not sure what type of training they had. I know one summer one of my professors was there doing something similar probably to what you did just speaking to a lot of teachers and he did some sessions with them. But in the rural school, yea I don't know. We worked with an English professor, and she actually came to Canada last summer to receive some sort of training teaching something helpful, some sort of classes that I think she took at NAIT. And the government funded that, so her and a number of teachers were here in Canada, so that was really cool. But that was for a school in the city, so not a school in rural.

Researcher: Well if we are talking about missing resources, I want to use this whiteboard. I'd like to figure out a list, a hypothetical situation. Say that there's any of your locations and we are building a new school. And I'd like to figure out a priority of what is essential, if you were putting together a kit of how to build this thing, what is required in your mind. And as basic as, you know, you don't need a building, then that won't go on the list. But I guess the most basic things all the way to your wish list, what would be what you like to see in this hypothetical school? So I'll just write them all down first, we can make a rough list and then we can put numbers to each and think together what we think is the most important and what's the least important, what's extra.

Participant 3: So what's important to us to the area that we were?

Researcher: Yea, to where you were and we can say in general, we can reach a consensus. If you think for my specific location computers were absolutely necessary, and participant 4 says no that's not really needed, then maybe it will end up in the middle. But if everyone says, you know "everyone needs notebooks", then that can go at the top. So yea, if you just throw out whatever comes to your mind.

Participant 2: You said building, I think building is important. Where I was we would get torrential rains. And they would just show up and you would have 5, 6cm of water on the ground...you have to have something to protect them.

Participant 4: Yea, I think bricks and mortar are pretty essential.

Participant 2: A chalkboard or writing surface of some sort whether it's a chalkboard, whiteboard, whatever it might be. To go with that an eraser, and something to write with.

Participant 3: How hot was it where you taught?

Participant 2: It was about 38 degrees plus humidity.

Participant 3: Was it like unbearable?

Participant 2: It was really really hot. You would go out in the sun and you could actually feel your skin sizzle. It was really weird because you couldn't go very far and the local ladies, because I'm so pale, were constantly shoving me in the shade. "You don't want to turn black, you don't want to turn black". And I'm like "I need a tan".

Participant 1: The one thing that the schools I was at had was for safety they had a gate that locked to enter the school.

Participant 2: It's interesting, because our buildings were completely open. No doors, nothing on the windows, just buildings.

Participant 4: Yea, ours were too but they were all enclosed by a big fencing and there was actually someone at the gate who monitored.

Participant 1: Yea, ours was inside that you had request access to get in.

Researcher: So then, why don't we change gate to security I guess. Like, to give you that sense of security right?

Participant 1: Another important thing was physical activity resources, so soccer balls, basketball balls, all that Phys.Ed. stuff.

Participant 2: That's interesting, where I was the PhysEd teacher wasn't there and they just went "meh, we'll just skip PhysEd." And we were look no no these kids need to get out and get some activity and run around. And you're right, there was nothing but they played football with the deflated soccer ball they were happy, and they played their clapping jumping games and we taught them some new games that didn't require any materials and they couldn't wait for PhysEd again.

Teacher resources and curriculum material.

Researcher: What do you mean by teacher resources?

Participant 2: Basically the relevant curriculum for the area, what the students need to know. And I know that a lot of those come from other countries such as we were bring stuff over from Canada and has you had said some of the things they were learning like mowing the lawn wasn't very relevant. But basically taking the resources where they actually have something and having it tailored to where they are and what they need. Does that kind of make sense?

Researcher: So is it literally....

Participant 2: Like a book to start, a place to start. Because if we didn't have textbooks or a curriculum document to work off of where do you go? What do these kids need to know?

Research: So then with curriculum should we put textbooks I guess?

Participant 2: Depends on your grade.

Researcher: Yea, okay. Let's talk about that. Some grades don't need textbooks?

Participant 2: I don't think so. Writing utensil and a notebook is probably what any of the younger grades need. High school maybe something different.

Researcher: Okay, is there anything else we think is needed? Or even wanted I guess?

Participant 2: Some place to sit.

Researcher: I'll put sitting place.

Participant 2: And you know what, for the younger grades you may not need a desk and chairs, but you need something that they are able to be comfortable, depending on the size of your group maybe it is pillows on the floor...I don't know. Depends on where you are and what's available. For higher grades something like a desk might be good, preferable not falling apart.

Participant 4: Most of the places where I was you would want to have like a table, because I know in Africa the bottom floor of the school was just dirt so you wouldn't want to be sitting there.

Participant 2: Okay, ours was cement.

Participant 1: Washroom facilities.

Researcher: I'm assuming you mean proper, like what we would consider proper. Or I guess I don't know.

Participant 2: You know what, having a toilet house with a hole in the ground as long as it's a designated toilet house is...so it's not going right outside the classroom door.

Participant 4: Water.

Researcher: For?

Participant 4: Washing your hands, washing your face, drinking, cleaning, all of those things; the one school we went to actually was asking us if we could donate money so they could have a tank to keep water in, and so they could have a place.

Researcher: So should I say electricity too? I guess you don't need water for electricity necessarily

Participant: And most schools take place during the daytime so if you've got proper windows on your building you may not need electricity.

Participant 4: When it's a storm, it's pretty dark.

Researcher: It may not be a super important thing, but we can put it up there.

Participant 3: I'd say air conditioning in an ideal school.

Researcher: You can be as ideal as you want.

Participant 3: Maybe it's not even that ideal, it was humid.

Participant 2: How hot?

Participant 3: Like over 35. But it's also really humid so it feels especially hot, and students always looked like they were exhausted even though they were local.

Participant 2: Always sweating. Where we were at night it was a cool 26 degrees. And they've never experienced anything below 17 Celsius. And so describing ice or winter...they had no clue whatsoever.

Researcher: Was there uniforms at any of your schools?

Participant 3: Yes, every school.

Researcher: And was that a helpful thing do you think? Or how did that work with the students, that you perceived at least?

Participant 4: I think it was really helpful for the students because they bought one outfit, and they had it, and there was no competition about who was wearing what, and I know even for my daughters from the schools that they came from just having that uniform was huge and it didn't have to be anything fancy. My one daughter had a pair of sweatpants and a t-shirt, but it was all the same colour and sense of identity and belonging.

Participant 1: And they had something to wear to school too, it was designated for that.

Participant 4: A lot of them didn't have shoes, but they did have the uniform.

Participant 3: The schools that we were at that were in the city they all had uniforms but I'm not sure what the purpose was, but I felt like students kind of ranked one another. They'd be like "oh, you're from Beihei number 5, and I'm from Beijong...the best high school".

Researcher: Because of different uniforms?

Participant 3: Yea, they knew where everyone was from because they could tell because of their uniforms. Not a big deal but...and they were all wealthy enough to be wearing clothes that were more than suitable, if not considered to be cool, so I don't know why specifically they wore uniforms. Maybe it's just more of a professional, traditional type of setting.

Researcher: Well, was it in rural as well? In the rural school?

Participant 3: I'm trying to think. Because when we were in the rural school we were there in the summer so they weren't wearing uniforms then, but maybe they do during the school year. I'd be surprised, kind of.

Researcher: If they did?

Participant 3: Yes.

Researcher: What about any tech stuff? Not needed? Not wanted?

Participant 4: I think some things are more essential than technology.

Participant 2: Agreed.

Participant 4: Books would be nice, right?

Participant 1: I think for those wanting to pursue education further though it's a good tool.

Researcher: So what kind of tech though?

Participant 1: I would say a computer.

Participant 3: I think in high school it would really help the students, especially when they're under a lot of pressure to know a lot to get into college and university. They spend a lot of their time in the computer lab there.

Researcher: They have internet then?

Participant 3: Yea, in the schools that we were in in the city, so Beihei.

Participant 2: Knowledgeable and trained teacher.

Researcher: Alright.

Participant 2: I have to say, I like that Belize does their mandatory 2 weeks in the summer time to promote their own skills, that's great.

Researcher: So, no need for overhead projectors or anything like that really?

Participant 3: I'm sure it would help.

Participant 2: It'd be nice, but I don't think it would be required.

Researcher: Okay, well we'll just put everything up, and if it ends up at the bottom of the list then that's okay.

Participant 2: Because I did a body lesson for the grade 3's and we drew a body on the board and started labeling and that was probably just as efficient as drawing a picture on the overhead, because you're not going to have the photocopier to print and put stuff on overheads. So, I don't know, different point of view.

Researcher: Okay, well we've got a pretty big list to start, so let's start trying to prioritize this, and if you think of something along the way we can add it. Give me your thoughts, out of all of these what would you consider to be number 1?

Participant 2: Building.

Researcher: Building?

Participant 3: I'd say knowledgeable and trained teachers.

Participant 1: I would say that too.

Participant 3: I feel like if they had that, these students would be a little bit more interested.

Researcher: Okay, so more important than the building you're both saying? And vice versa, you're saying building is more important than trained teachers?

Participant 2: They need to have a place to be meeting and in the weather, whether it's really really hot or if it's a rainy season under a tree may not do.

Participant 3: I think building yea, definitely, probably number 1 priority. Because same with where I was, if it was raining they couldn't even go to school sometimes.



Participant 2: But I agree that the teacher is important. I would put that number 2.

Researcher: What do you think of that? Yea? Alright. Okay, so you've got building, your teachers, and then?

Participant 1: The resources and curriculum.

Participant 2: Just looking at the list, like you said it's big.

Participant 4: I think washroom facilities.

Researcher: Yea?

Participant 3: It's hard to know...are we prioritizing based on learning?

Researcher: Yea, and keep in mind we can jungle things around as we go.

Participant 4: So if we think about the child being able to feel comfortable, and being able to feel safe, then they're going to be able to learn. So I'm just saying that we probably need some of those basic needs met before we go to some of the learning things.

Researcher: Because you're saying that without proper facilities they're not going to...



Participant 4: Right.

Participant 3: So would you say the security would be...

Participant 4: Well it depends where they are right? So in some places yes, security is going to be huge.

Researcher: So let's assume it's the most unsafe, unsanitary, hot...

Participant 3: Worst case scenario.

Researcher: Worst-case scenario yea, I guess. You're starting from scratch, then I guess would you consider security over washrooms? Or washrooms over?

Participant 4: Actually, I think water would be first.

Researcher: Water, okay. Yea, I don't know, do you guys agree with that?

Participant 2: There's a few that I'm looking at thinking those are pretty high.

Researcher: We can put some as a tie too if that helps.



Participant 2: Because I agree with you saying the teacher resources and the curriculum is important and they have to have a direction. But security is important, washroom facilities and water. I don't know, I torn kind of between the 4 of them.

Researcher: Well why don't we lump washrooms, water, and security together as kind of your building facilities. So I guess let's say between that and the curriculum which one do we prefer?

Participant 3: Between curriculum and what was the other one?

Researcher: And washrooms, water, and security...your building basically.

Participant 3: At the school that I was at they had what we would consider to be a pretty unacceptable bathroom, but the students it was kind of just part of life and it didn't seem to be a huge issue with them, but I don't know how it was where you were at.

Participant 4: At least they had one.

Participant 3: Yea, well it was a trough. But they never complained, but that doesn't mean it was ideal.

Participant 1: I think I would group those 3 higher than the other, just because I think you need them in order to be able to learn.

Researcher: Alright, let's do it. So then we're saying this is next hey? Seems to be what we were saying. So okay, we can put that as a 4. And it'll get trickier as we go.

Participant 3: Sitting place...where...in China they will not sit on the floor. The floor is considered very dirty. So they don't even put like how we have our purses, they wouldn't even do that, so they would need to have chairs and things to sit on. But that's a cultural thing I think as well.

Researcher: So in general, what do you think...sitting place I guess.

Participant 2: I'm torn with that, and also with a writing surface such as a blackboard kind of surface. Those are the 2 that I'm looking at next.

Participant 3: Yea, me too.

Researcher: Yea, and I've kind of lumped these in like the eraser, that whole thing. Well we can...if we want...we can put them as a tie.

Participant 2: Because that's kind of your physical environment in your building right?

Participant 1: I would put notebook in with the writing stuff too.

Participant 2: Next for me, I'd like to see books. We would pull out the books and read to the kids and you'd be like 15 kids surrounding you listening to the story. It was something totally foreign to them, having someone read to them, and they loved it.

Participant 4: I found that with teachers, because they weren't readers. And so you'd read a story and they would just be mesmerized.

Researcher: Interesting

Participant 3: Why were they not readers?

Participant 4: It's just not a part of their culture.

Participant 2: In Ghana their official language and the language they are supposed to do school in is English, but that's not what people learn to start with when they are young. They learn their native language, and there's a few of them such as Tui in the area. So they come to school not speaking the language such as like you experienced as well.

Participant 1: That was the same with South Africa. They speak Afrikaans but starting in kindergarten until grade 7 they do everything in Afrikaans. Well, grade 7 they are doing math. I mean, sorry, they do everything in English but in grade 7 they start doing math in Afrikaans. And later they do language courses in Afrikaans throughout that too, like we would do French.

Researcher: So a lot of them their first experience with English is school?

Participant 1: Quite often. They will speak English at homes too, but their main language is Afrikaans.

Researcher: So okay, how do we feel about books I guess? Over electricity or A/C, computers, activity equipment?

Participants: I would say books.

Researcher: Okay.

Participant 2: Are we including table in with sitting place? Like desks, like desk and table?

Researcher: Right, should we, do you think so? Put these together? Sure, yea, that works. So okay, sitting place and table. And sitting place we are considering either a table or a space right, like cushions or something?

Participant 1: Maybe electricity? Because a lot of those next things you need electricity for.

Participant 2: I think that'd be your next one for sure.

Researcher: Okay, so we have computer, internet, A/C, uniforms, and overhead projectors left.

Participant 2: And there's also activity equipment

Researcher: And activity equipment.

Participant 2: Those kids like their activity equipment, those soccer balls, hacky sacks.

Researcher: Sure, okay.

Participant 1: I think I would put computer next.

Participant 2: Agreed.

Researcher: And now I guess it's starting to be more the extras right?

Participant 2: Yea, these are definitely the extras. Looking at these I would go internet next.

Participant 3: Yea, I'd say that's more important than an overhead projector.

Participant 2: Because it's a resource for the teacher as well as the students.

Researcher: I'm curious, you were talking about uniforms and the importance of the equality that it creates in that way. So I guess, do you agree with that as well?

Participant 4: I really think it depends on the culture. And it varies in the places that I've been that for a lot students that are poor it's a sense of pride and a sense of belonging to be able to have a uniform, and to be able to have something to go to school in that makes you feel like you belong. So it's part of a basic need that's met.

Participant 2: And maybe it's that we're looking at it from a North American perspective. Here we're like we don't really need uniforms, you know if they're there they're there, if they're not, no big deal.

Researcher: And I'm not pushing uniforms at all, I was just... Elaine had talked a bit about it so I was curious to see

Participant 2: I agree with what she has said because we had uniforms in Ghana as well and it was their nice thing to wear to school is really what it was. It was appropriate; it wasn't full of holes. It wasn't well worn in the same way everyday clothes would be. Because going shopping there was like going through a pile of clothing at Value Village, that was your clothes shopping. Good luck finding something. And it was layed out on a tarp in the middle of the market, and that's how you bought your clothes. So that was their nice thing to go to school. So yea I agree with the sense of belonging, but I think that kids can still learn no matter what they're wearing. And if we are focusing on the learning, I like internet. But I'm open for suggestions.

Researcher: Yea, we can put it there for now. Everything can have a spot for now. Yea, we can have things tied too. If you think A/C and projectors are equal, we don't have to place them one or the other. So yea, just the 3 left right? A/C, projector, and uniforms. All pretty equal? If you had extra funding what's the first thing you would buy?

Participant 2: You know comfort maybe for people who don't live in the actual climate, A/C would be nice, but those people live there. They've experienced it their whole lives, they've lived with it, they know how to deal with it. So as nice as A/C is I don't think it's necessary for the local people. Personally I would go with uniforms as the next one.

Researcher: So then between projector and A/C I guess, what do you guys think?

Participant 4: Projector.

Participant 2: Now the overhead projector, now are you talking like your traditional overhead where you put the clear paper on, or are you talking a projector you can hook up to your computer? Because then you can start sharing what you have on your computer and your internet with your students and start showing them maybe those more media based things or program based so...I don't know, do we want overhead projector or do we want more of like an actual projector projector?

Researcher: Yea, I can separate those out, sure. So where do you think this sits then, approximately?

Participant 3: With the computer and internet.

Participant 2: I would put it as maybe 11, and put uniforms as 12. Because you have your computer, your internet, and your projector to share with the people. I don't know, what do you guys think?

Researcher: Alright, great. So after all that we still think that building is the most important. And followed up knowledgeable and trained teachers, water, washrooms, and security. Then teachers and resources, or teacher resources sorry, and then your writing utensil, then books, and then electricity, activity equipment.

Participant 2: Your A/C would be 14.

Researcher: Right, sorry. So I guess give it a quick overlook, and tell me if you still agree with everything, slash if there's anything to add, and if not we can go on to the next thing. Looks pretty good? Alright, awesome. Well then lets just talk briefly about what kinds of issues would you see implementing solutions. I mean just my little bit I guess, I was talking to one of my uncles and he lived in China for a while and Africa for a while and he was saying some of these things...if you give these beautiful desks to students in Africa, they'll take them to the market and sell them and then they have no desk. So I guess would you see similar issues with any of these findings or anything you saw I guess? Was there issues with implementing resources?

Participant 4: For example, in Belize where I was the school had been built by Canadians that came in and they had painted murals on all the walls of biblical stories and we came there 3 years after it had been and it was just so wrecked.

Researcher: The murals were?

Participant 4: Yea, well and everything...it was just in such poor disrepair. How much money would it take to just maintain, right? So it felt like they didn't have the same sense of ownership maybe, it's hard to know. But whether that was a cultural thing, or there wasn't the same sense of ownership, or whether they thought it was too much of an expense, I'm not sure but it was...everything is in poor disrepair. The desks that they had were really bad, and there was a very limited number of them. So yea it was just interesting that there wasn't that same sense of looking after that we have.

Participant 2: It's nice that you had a timeframe to see what came new what did it look like. Because what I saw things were in rough shape, but I don't know if they were there 3 years, or 30 years, and they were in rough shape, but who knows how long ago that started.

Participant 1: The school I was at too both the computer lab and the library were locked so at all times when students were in there, there was a teacher, and I think part of it was because of the valuable that were in them.

Researcher: Is that different here? Is the computer lab locked up here usually as well? Same thing?

Participant 2: But that goes along with your security, and if you have proper security whether its doors and locks or personnel then maybe that would reduce things from disappearing. The school I was at it had no windows or doors on each individual classroom, you could walk in and out anytime and people from the neighbouring town could drive down the road...technically they could do a raid of the school and take all the desks and resources and away they go. There was no fence, no doors, there's no locks, nothing. So maybe if your security was in place on some of those resources you could have the nicer things, the more expensive things, things that we take for granted.

Researcher: Alright, well I guess any other thoughts, anything that's come to your mind that you saw and what you felt was missing. Something that jumped out at you, maybe you thought you know "if only they had this one thing". Or the other side of it, we can talk about what you thought was really effective. What you thought "wow this all they have, but they're really doing a great job of it". We can talk about that too.

Participant 4: It's interesting, when I was in Belize I spoke with a sociologist who traveled there every year and one of the things that he's trying to do is build a middle class because what he's found is that in Belize it's a lot of lower class people and there's a very small rich class and they don't care about anybody but themselves, the rich people. They make their money and then they do whatever they want, and a society only really progresses when you have a middle class because the people that are down here they are just surviving, they're in survival mode. And it's when you get a middle class that people start doing something in the society helping out. And so in Belize they said that they haven't been able to make much progress because they don't have a middle class that's strong enough. And so the place to start is with education and being able to educate people so that they can develop a middle class so that then their society can develop because now that's not happening. And so I just found it interesting because I hadn't really seen it from that perspective before.

Participant 2: I was really impressed with the passion for education that the students had where I was. They really realized how much of a privilege it was to be at school. They would get on public transit, which was a 15 passenger van from the 70's where you could watch the road go by in a hole in the floor and there would be so many kids in there it might take 2 hours to get from home to the school. And they were there for 7:30 for their songs and their prayers and ready to go for 8:00. And they were happy to be there and they would stick around well past the school day end. It was really nice to see how much those students cared about going to school. That made classroom management fairly easy even though the class sizes were so big. Like we've had classes of 40 in our high school this year and the teachers are going "oh my goodness oh my goodness" and I'm thinking I had 40 grade 10's in a science class and I'm thinking "wow, they're sure packed in" and then I went "wait a second, that class of 52 grade 2's there was more bodies than these grade 10's know how school works, grade 2's are still working on it and figuring it out and if I could do that I can handle these 40 grade 10's. So just an adjustment in my perspective.

Participant 1: I think in South Africa school is also seen as a place of security and safety. Because a lot of these kids grew up in the townships that were close by and life there was really rough and it was scary; we were told never to go in there just because it wasn't safe. So I think when parents drop their kids off at school they knew they would be safe there until they picked them up at the end of the day as well. And one thing I think that they really could use there would be more of the applicable curriculum and resources, and ways to engage the students in that.

Participant 2: Have you seen the school in a box put out by the UN?

Researcher: No.

Participant 2: I went for a tour of the United Nations headquarters in New York this summer, and they have a program where they've got school in a box. And it's a metal tin about that big, and it's full of enough school supplies for 80 students and 2 teachers. Pencils, erasers, sharpeners, chalk, a little mini chalk board...everything that they'd need to basically pick up and do school. So it's a really neat resource to take a peak at and see what they had.

Researcher: And when you saw it did it all make sense?

Participant 2: Oh gosh, I took a picture of it, I don't remember. But looking at it had you know the stacks of lined notebooks. They didn't have everything completely open and displayed, they just had the crate open so that people could see the projects that they are doing. I thought it was a really neat idea, because you're looking at refugee camps and such and this is kind of the purpose I believe of these boxes. If people have to pick up and go, and they want to continue their education for their children. For 80 kids and 2 teachers is what was in the box and it was pretty decent supply. It wasn't very big, it probably wouldn't last them very long but it's better than nothing.

Researcher: Yea, totally. Any last thoughts at all? If not I'll let you go. Alright.

END

Design for Empowerment: Developing Appropriate Solutions for Education Abroad

In the previous portion of this study you participated in a focus group involving educators who have worked and volunteered in countries outside than Canada. The information you provided was used to develop the next section of the study.

The focus group revealed that the learning resources required to teach culturally appropriate curriculum are often missing or lacking in other contexts. Although not expressed as missing to the same extent that learning resources are, activity equipment was ranked as an important component of the educational environment. The intended outcome of this section of the study is to produce an artifact that facilitates learning through activity, utilizing the local materials and skills from the area where you volunteered. This may involve reproduction of existing activity equipment (ie. soccer nets), production of an artifact that facilitates an existing activity (ie. benches), or development of an entirely new activity and artifact.

See <http://www.afritecture.org/landscape-architecture/learning-landscape> for inspiration.

The goal of this next section of the study is for you to express your experiences and thoughts in the booklet provided, which has been developed with the intention of guiding you through the design process. The role of the researcher (Mike Buss) is to facilitate and support your exposure to the design process. As you complete the booklet, the researcher will work with you one-on-one in order to refine the information that you have provided. Together you will decide on the appropriate materials, construction, and skills required to produce the artifact that is desired. You will be fully supported throughout the process, and the booklet has been developed to be as enjoyable and non-intrusive to your regular schedule as possible.


Following this section of the study, the researcher will build physical prototypes of the artifact that has been developed in order to test and evaluate its effectiveness. These prototypes will be displayed in the final exhibition for the researcher's thesis gallery show. You will be recognized and given credit for your artifact as part of the exhibition (if you wish).

Thank you for your participation in this study!



Activities

In bullet-point form, list the activities that you saw take place in the region where you were volunteering. These activities do not need to be limited to the educational environment; list any form of activity (ie. sports, work, socializing etc.). Write a brief one or two sentence description of each activity that you list as required.



Were there any activities that you noticed were unique to that region/ were different than Canadian activities? Briefly list which activities and why.

Activity Equipment

In bullet-point form, list the activity equipment that you saw being used in the region where you were volunteering. The activity equipment does not need to be limited to the educational environment; list any form of activity equipment (ie. sports equipment, tools, construction equipment etc.). Write a brief one or two sentence description of each piece of activity equipment that you list as required.

Was there any activity equipment that you noticed was unique to that region/ was different than Canadian activity equipment? Briefly list what and why.

Skills

In bullet-point form, list the skills that you saw being used in the region where you were volunteering. This may include construction techniques, cooking styles, fabrication techniques (ie. pottery, weaving etc.), or any other type of skill. These skills do not need to be limited to the educational environment. Write a brief one or two sentence description of where you saw the skill being used.

Were there any skills that you noticed were unique to that region/ were different than Canadian skills? Briefly list which skills and why.

Materials

In bullet-point form, list the materials that you saw being used in the region where you were volunteering. This may include construction materials, cooking materials, clothing materials, or materials used for any other function. These materials do not need to be limited to the educational environment. Write a brief one or two sentence description of each material describing where you saw it being used.

Were there any materials that you noticed were unique to that region/ were different than Canadian materials? Briefly list which materials and why.

Groups

Re-list the materials, skills, activities, and activity equipment you listed earlier, but this time group them according to what seems to fit together best. For example, you might group items like brick, masonry, playing cards, and table. You may have as many groups as you like. Groups do not need to fit within traditional applications, for example a table is able to be produced using masonry, weaving, pottery, or any number of skills. Once you are finished, circle your 3 favourite groups (for whichever reason that may be).

Drivers

List some words to function as drivers to aid in developing the groups that you chose (on page 6 of this booklet) into a prototype product...drivers are goals or aims for the product to achieve. "Easy to assemble" or "fun" are examples of drivers. These words are important to give direction to the project. Once you are finished, circle your favourite 3 words as drivers for the project.


Sketches

Using your groups and drivers from the previous pages (pages 6 and 7) of this booklet, sketch some initial thoughts regarding how the materials and skills may be applied to facilitate the activity. This may be done before you meet with the researcher, or you may complete this together with the researcher. At this point try to also think about how the activities that you have chosen in your groups may be applied to an educational environment.

Development

Select your favourite group (out of the three groups that you created sketches for on the previous page of this booklet) to be developed based on the sketches completed on the previous page. The reason for selection is up to you. Work with the researcher to develop more detailed sketches that may then be produced as a physical prototype. This page is to be completed together with the researcher.

Appendix E : Participant 4 Booklet


 Melize (Note: I was teaching teachers so school was not in session while I was there and I was unable to view the types of activities children at school would engage in.)

Activities:

- Bike riding (lots of younger people used bikes to get around as the town was very spread out for a smaller population)
- Fishing (by the river on Sunday afternoons and in the early evening)
- Cooking (outside and in)
- Shopping (it seemed to be more of a daily (or every few days) activity to get groceries)
- Walking (everywhere)
- Hanging out (there were always people on street corners, in yards, on the sidewalks etc. just hanging around visiting- not the same rush society feeling we tend to have here)
- Picnics (popular activity in the early evening to be sitting by the river sharing food)
- Lots of tiny shops and stalls that people hung out at eating and talking (candy stores, taco type shops, ice cream stalls, corn roast stalls)
- Cement Brick making
- Building by setting the bricks on top of each other with mortar.

Activity Equipment


- Bicycles
- Fishing Poles
- Pots and Pans
- Fire pits
- Shopping baskets
- Umbrellas (carried with them everywhere, small and compact making them easy to carry around)

 We usually just have bags for shopping (often reusable) while about one third of the people took a shopping basket with them to get fruits and vegetables from the stands.

Skills

- Brick making
- Brick building (it was interesting to me that many buildings had a first story and a partially completed second story – I was told that this was because they built on more as they could afford to do so rather than borrow the money to build and pay later as we do here in Canada, there were no basements and many houses in the south and along the coast were built on stilts. In the school a hole had just been chipped out of the wall in the bathroom to let in light as there were no lights so it was dark.)
- Most foods were pan fried or boiled (ovens were not commonly used)
- Wood carving seemed to be a valued skill (although I did not see it in progress, just the finished products)

Materials

- Wood
 - Cement bricks
 - Utensils
 - Pots and pans
- 

Groups

- Bicycles, bike riding
- Cement bricks, building, mortar
- Fire pits, pots and pans
- Umbrellas, baskets, shopping
- Baskets, picnics, fishing rods, fishing
- Wood, knives, utensils, carving

Drivers

- Fun
- Useful
- Easy for a variety of ages to use
- Clear instructions
- Stands up to all weather

Activities

In bullet-point form, list the activities that you saw take place in the region where you were volunteering. These activities do not need to be limited to the educational environment; list any form of activity (ie. sports, work, socializing etc.). Write a brief one or two sentence description of each activity that you list as required.

FNMI (First Nation, Metis, Inuit) Community

- BBQ: We hosted a number of bbq's as a community initiative to gain the trust of the community and build relationships that would ensure closer steps towards sustainability.
- Art Workshop: in an effort to produce sustainable programming I hired a member from the community who is familiar with Native art and crafts to lead weekly workshops.
- Short Films: Some of the kids really enjoyed making scripts to movies and then filming them. This usually took around a day to complete, a little more with editing. Themes of the movies were usually murder mysteries or horror stories.
- Sports: The two biggest sports in Northern Alberta are baseball and hockey. We organized a few hockey tournaments and were also able to organize some baseball tournaments as well.
- Fishing: Two youth in the community accompanied me on early morning excursions to the lake to go fishing as well as hunt for lost lures in the weeds.
- Community Clean Up: Before any fieldtrip, such as paintballing, water parks or the film festival, youth were required to complete 10 hours of community clean up. We accompanied large groups of youth to collect garbage in the community on these days.
- Beach Days: With a location central to the lake, it was easy, close and fun to have beach days. Youth would bring beach toys, water guns, fishing rods, etc., and we would host games at the beach.
- Open Gym: Dodge ball, hockey, basketball, kickball, hide & seek, soccer, pool, capture the flag, etc. Basically anything the kids wanted to do within the confines of a gymnasium was free game.
- Race to the Lake: Race to the lake is an annual community event. The run is 5 km from the lake to the recreation hall, and anyone can run it (from kids – adults).
- Aboriginal Film Festival: Annual film festival held in Edmonton. Showcases works by aboriginal film stars and artists.
- Water Park
- Paintballing

China

- English Corner: Students and young people would come to café's, classrooms to practice their English conversationally.
- Chinese BBQ: At the end of our time with Students from Beihai, China, we go out to a beach called, Silver Beach for Chinese BBQ. The bbq's need to be booked in advance, and are made with bricks, a small grill, raised over the ground. Kindling, coals and fire starter are not supplied.
- Court Soccer: Any available space to play soccer in China is coveted. Though most schools have some sort of space to play, grass isn't to be assumed. I've never played soccer on the grass in China. I've only ever played it on tennis courts, basketballs courts or courtyards.
- Basketball
- Blind Obstacle Course: Used as a team building game to demonstrate the importance of community, and family. Students wore blindfolds and then walked through a course with a series of obstacles in their way.
- Mini Stick Hockey: Students loved this game, especially because it is a "Canadian" game. They love taking part of western culture.
- Handball: Another game that the students loved because of the Canadian background. Basically the same rules as soccer without the feet. Also students can only take three steps with the ball.
- Dumpling Making: Food is HUGE in Chinese Culture. In fact, the culture revolves around food. Dumping making is considered to be a great experience to bring people together.
- Scavenger Hunt: Students were given a list of things to find and do compile by us, which they had a specific time frame to complete by.
- Energizer Games: Games designed to teach new words, practice new words, while incorporating teamwork. Some games we played were the human knot, caterpillar, egg carrying game, etc.

Were there any activities that you noticed were unique to that region/ were different than Canadian Activity Equipment

- Chinese BBQs are unique to the region, and somewhat of a tradition with the team/initiative I went with.
- The activities held in the FNMI community weren't necessarily unique to the region, however, when compared to the western community, I would say there was more community involvement, but not community support in the FNMI community (people wanted to participate, but they didn't want to get involved by helping)

Activity Equipment

In bullet-point form, list the activity equipment that you saw being used in the region where you were volunteering. The activity equipment does not need to be limited to the educational environment; list any form of activity equipment (ie. sports equipment, tools, construction equipment etc.). Write a brief one or two sentence description of each piece of activity equipment that you list as required.

FNMI Community:

- Old hockey equipment and old sports equipment in general.
Most of which are annually donated by the oil industry.
- Recreation Facilities
Some communities have recreational facilities analogous to a gymnasium, however, usually considerably run down as it doubles as a venue for community events and anything else that needs to facilitate a large group.

Chinese Community

- Most of the games or activities we've played in the Chinese Communities have been games that included materials and equipment from Canada, or are normative to Canada (Soccer, basketball, etc).

Was there any activity equipment that you noticed was unique to that region/ was different than Canadian activity equipment? Briefly list what and why.

- In the FNMI regions there were materials used that are strictly "Canadian," however, are not used in everyday western life. During some art sessions we made drums out of deer hide with the kids, as well as feathers for beading necklaces.

- During the Chinese BBQ day, we utilized public BBQ pits from a local park. These pits were suspended above ground and fitted with brick and stone.

Skills

In bullet-point form, list the skills that you saw being used in the region where you were volunteering. This may include construction techniques, cooking styles, fabrication techniques (ie. pottery, weaving etc.), or any other type of skill. These skills do not need to be limited to the educational environment. Write a brief one or two sentence description of where you saw the skill being used.

China: Construction Techniques - In Asia it was very common to see bamboo scaffolding being utilized in the construction of new buildings. These scaffolding systems were covered in heavy green netting and the structures could be seen in many developing, rural villages and metropolitan cities. Depending on the region or province use of technology varied. Some areas use more modern technology and hardware, such as Shanghai, but in isolated provinces it is normal to see a minimalist approach to the use of technology.

China: Cooking Styles – In China, there are SO many cooking styles. For example: Hot pot, braising, broiling, boiling, scalding, deep frying, pan frying, stir frying, simmering, steaming, baking, roasting, marinating, pickling, etc. Cooking styles can vary from city to city and province-to-province, and usually specific regions have their own special dishes.

Arts and Crafts: In rural areas of China, the students were very skilled with crafting. For example, one activity we did was friendship bracelets. We came up with some easy designs we had researched online, but a number of the students used their own traditional designs, since braiding is a strong Chinese tradition. Something that would have been nice to know since we could have incorporated it in really interesting ways.

Singing: Most Chinese students I've met have a strong enjoyment for karaoke. However, they are also excellent singers and can easily carry a tune. This may be evidenced by the fact that Mandarin and Cantonese are tonal languages.

FNMI Community: People in this community of 300 still memorized phone numbers. Perhaps quite trivial, however, I found this fascinating since I probably haven't memorized a new number since I was in the 7th grade.

Were there any skills that you noticed were unique to that region/ were different than Canadian skills? Briefly list which skills and why.

FNMI Community: Dancing – In the FNMI communities I worked in, students had a strong knowledge and skill in traditional dances such as pow wow dancing, jigging and square dancing.

China: Students seem to be quite self-sufficient (they are adept at taking public transit in big cities, buying groceries, cooking, etc.) Drawing ability, and a willingness to perform are skills I saw being utilized in the school setting.

Materials

In bullet-point form, list the materials that you saw being used in the region where you were volunteering. This may include construction materials, cooking materials, clothing materials, or materials used for any other function. These materials do not need to be limited to the educational environment. Write a brief one or two sentence description of each material describing where you saw it being used.

China: Construction Materials – Bamboo scaffolding, rebar, concrete building. Wooden Shingles. Old cars, trucks, bikes, etc., used in small villages, county sides and cities.

China: Variety of cooking materials (dishes, spices, other ingredients, etc).
Most important, however, is the hot flame that is commonly used in Chinese cooking.

China: in the village we were volunteering at in China, kids had very little. Most were “left behind children,” whose parents had left them behind to work in the city, a phenomenon that is an increasingly growing concern in China. Children didn’t own many pairs of clothes, and for some of them I noticed maximum one set of clothes.

Were there any materials that you noticed were unique to that region/ were different than Canadian? Briefly list which materials and why.

Other than materials for cooking food and materials for building I didn’t think that too much was unique to the region. However, that being said, in China everything is about food and the culture itself is different. So, if anything had writing or something like that it would be unique in terms of being different from Canada.

Drivers

List some words to function as drivers to aid in developing the groups that you chose (on page 6 of this booklet) into a prototype product...drivers are goals or aims for the product to achieve. “Easy to assemble” or “fun” are examples of drivers. These words are important to give direction to the project. Once you are finished, circle your favourite 3 words as drivers for the project.

	China	FMNI
Indoors	Necessity (Blackboard/ Chairs)	Popular Choice
Outdoors	Accessible	Sustainable
Art	Creativity	Inclusive
Energizers	Fun	Fun
Food	Community	Community

Sketches

Using your groups and drivers from the previous pages (pages 6 and 7) of this booklet, sketch some initial thoughts regarding how the materials and skills may be applied to facilitate the activity. This may be done before you meet with the researcher, or you may complete this together with the researcher. At this point try to also think about how the activities that you have chosen in your groups may be applied to an educational environment.

With a number of the outdoor activities not too much equipment is actually needed. This is one of the reasons I chose the word “sustainability” as a driver. The main goal while I was working in the FNMI communities was essentially to work myself out of the job. Therefore, having/ teaching activities and hosting programs that could operate without my facilitation was fundamental. However, I believe that there are also a number of educational goals that could be reached, and that would even fit in with the Alberta POS and curriculum if need be. For example, a lot of the outdoor activities could meet a number of physical educational goals and learning outcomes. Incorporating teamwork and values in line with inclusion, sportsmanship and fair play are also fundamental if sustainability is going to be achieved. This brings me to the third word that I chose, which was community. In order for sustainability to be achieved a community needs to be involved that cares enough to facilitate in place of the “educators.” Not only are they fundamental in facilitating in place of said educators, they are also responsible for encouraging and motivating the youth to take the initiative themselves. That being said, the same goes for my experience volunteering in China. The times where our ultimate goals were met, were times when the community was involved and included in our planning process.

Development

Select your favorite group (out of the three groups that you created sketches for on the previous page of this booklet) to be developed based on the sketches completed on the previous page. The reason for selection is up to you. Work with the researcher to develop more detailed sketches that may then be produced as a physical prototype. This page is to be completed together with the researcher.

My favorite group is outdoors/food/community.



